

Duke, Daphne

253001  
2014.187E

**From:** Easterling, Deborah  
**Sent:** Friday, October 17, 2014 8:24 AM  
**To:** Duke, Daphne  
**Subject:** FW: In behalf of millions of victims - the Petition to Review Order 2014-785  
**Attachments:** PSC-Petition14-10-16.doc

**From:** joe4ocean@aim.com [mailto:joe4ocean@aim.com]  
**Sent:** Thursday, October 16, 2014 5:17 PM  
**To:** PSC\_Contact  
**Subject:** In behalf of millions of victims - the Petition to Review Order 2014-785

Dear Ms. Boyd:

Enclosed is

***PETITION for a REVIEW of ORDER***

***PSC Order 2014-785***

*still assuming BLRA as a legal ground to allow overcharges SCE&G 675,000 customers.  
You know that SCANA lawyers never did and cannot meet BLRA Definition.  
This way to cover costs of the nuclear project in Jenkinsville is wrong and unethical  
GA got \$6.5 billion for their twin project so SC could do the same.  
The Criminal negligence made millions of victims including veterans and retirees.  
PSC still have a legal and humanitarian chance to end this scandal as was done for Enron  
in 2001.*

*Sincerely,  
Joseph Wojcicki - the enrgy consulatnt and ex-intervenor.*

BEFORE THE PUBLIC SERVICE COMMISSION

Dockets from No. **2014-187-E and back to 2008-196-E** – all that apply BLRA as a legal base for PSC Orders with ORS stipulations and reports.

<p>IN MATTER OF:</p> <p><b>Combined Application of SCE&amp;G ... for a Base Load Review [Act] Order and ... for Authority to Adjust and Increase Its Electric Rates and Charges.</b></p>	<p><b>PETITION for a REVIEW of ORDER 2014-785.</b></p>
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According to Order 2014-785 \_ 11. *Any aggrieved party may petition this Commission for a review of this Order within thirty (30) days from the date of this Order. S.C. Code Ann. § 58-33- 285(A).*

In behalf of millions of strongly aggrieved victims of multi-billion SCANA (NYSE:SCG) financial scandal, I, Joseph E. Wojcicki (“advocate”, “relator/informant of FCA of BLRA”, “energy consultant”, “Wojcicki”) do petition to review another, based on S.C. Base Load Review Act (BLRA) electric kWh rate increasing Order. BLRA shall not be a legal ground because its definition was never met and proved in the scientific/engineering form. There is a 300% proof of false claim of this Act and Declaration to Protest, the document/matter ID 25866 delivered on 2014-08-11.

There is no more devoted person in this case to represent:

- Veterans,
- Retirees,
- Children, and
- Residential and business, electric energy users that got such unnecessary financial burden since 2008.

ORS breach their three-point mission completely ignoring:

- (a) the consuming public interest blindly approving each of SCANA requests for kWh rate increase, which is hurting home and business budgets;
- (b) the utility integrity by putting SCE&G employees in a jeopardy from “parental” SCANA scandal, which is similar to Enron’s one ended in bankruptcy in 2001), and
- (c) the economic development of South Carolina and the U.S.A. by removed billions of dollars from other investments and U.S. financial market.

It seems that ORS try to avoid legal and moral confrontation disregarding the challenge of FCA of BLRA. (doc # 251229 Of 6/23/2014)

No number of Protestants since 2009 made a difference. Now, even the felony of FCA of BLRA is disregarded.

**REALITY TESTS IMPORTANT IN THIS CASE.**

T-1. ENGINEERING ANALYSIS of FCA of BLRA<sup>1</sup>. Acknowledging existence of this 300% proof of False Claimed Assumption of Base Load Review Act and accepting responsibility to end the SCANA scandal will give TEST PASSed result.

<sup>1</sup>—ENGINEERING, LOGICAL, AND COMMON SENSE ANALYSIS OF FALSE CLAIMED ASSUMPTION OF S.C. BASE LOAD REVIEW ACT (FCA of BLRA) USED TO GET INCREASED kWh RATES BY SCANA CORPORATION FROM SCE&G COMPANY RATEPAYERS AND THE CONSEQUENCES (“Engineering Analysis”); it is also available in form of eBook ([www.bypas-int.net](http://www.bypas-int.net)).

T-2 The Test of Public Interest Representation.

ORS already failed it by blindly accepting SCANA request for 3% kWh rates increase ignoring energy consultant's and FCA of BLRA informant's challenge.

This fact removes trust in ORS to return to their mission.

The SCE&G customers must act for a faster recovery their money already paid for higher kWh by individual dispute as instructed ASAP.

T-3 The Test of Acting according to own PSC motto: **Our [P.S.C.] Mission:**

A Fair, Open, And Efficient Regulatory Process That Promotes Cost-Effective And Reliable Utility Services

PSC is now under this Test to show how the Commissioners, mostly legal professionals will realize their Motto.

The **FAIR** requires review erroneous assumption of BLRA as a legal ground for kWh rates increases and re-order return money taken from ratepayers.

The **OPEN** requires to release information of existence of Engineering Analysis to Mass Media as was required from SCANA/SCE&G to deliver such info with their Application of South Carolina Electric & Gas Company for Approval to Revise Rates under the Base Load Review Act (BLRA). People and businesses expected hearings to clarification FCA of BLRA usage for kWh rate increase instead of using Bush-Obama stimulus as Georgia Utilities done and got \$6.5 Billion in February 2014.

In **REGULATORY PROCESS** ORS/PSC forgot to check if BLRA definition was met.

In **COST\_EFFECTIVE** financing of the nuclear project was selected non-effective and illegal in this location (Jenkinsville) BLRA.

In **RELIABLE UTILITY SERVICES** – the SCANA (NYSE:SCG) “parental custody” of SCE&G would end as Enron (NYSE:ENE) scandal in bankruptcy in 2001.

T-4 The Test of Ethics in legal professionals involved in this case.

In Pre-election time, we observe several actions in Courts, Commissions, Grand Jury etc. the trial to “clean” several persons and institutions.

Examples: (a) S.C. Supreme Court Chief Justice J.H. Toal acknowledges possible “bribes” in Bobby Harrell v Alan Wilson criminal/ethics case.

(b) Judge Margaret Seymour sentenced Richard Breibart to 63 months in prison for \$2.4 M fraud with 88 victims. He was a mentor at U.S.C. School of Law. Please compare his case to SCANA legal team in six-year scandal / \$3 Billion fraud and SCE&G 675,000 ratepayers.

S.C. Judicial system has several authorities to use for the victims behalf. PSC should ask SC Legislature for help / hearings because they are creators of BLRA without SC Governor's signature.

T-5 The Transparency versus Conspiracy in Silencing.

Silencing SCANA scandal seems to indicate a conspiracy “behind the closed doors”. Medication to treat this problem is Press Release as was done by SCANA/SCE&G in the beginning of this Application. What is wrong to inform the general public of opposition to BLRA as a legal ground? A regular citizen will see next Denial of this Petition, as extended circle of conspiracy.

**T-6. THE OBSTRUCTION OF JUSTICE.**

Denials of presented facts of omissions and the ignorance of public voices leave a question to answer: "What is Our [the People] Justice?"

If it follows:

(a) US Supreme Court judge Sonia Sotomayor's

**"We apply law to facts. We don't apply feelings to facts "**

or

(b) Nazi's

**"If facts contradict this theory [BLRA], the worse for the facts"**

**CONCLUSION.**

The common laws and sense indicate that in this case where covering costs of Jenkinsville nuclear (non-base load) plant are in government stimulus funds, PSC should reverse order to return illegally collected money with appropriate punitive damage and ROI percentages.

Sincerely,

Joseph E. Wojcicki – the energy consultants at [www.bypas-int.net](http://www.bypas-int.net)

820 East Steele Road  
West Columbia, SC 29170-1125

October 16, 2014

BEFORE THE PUBLIC SERVICE COMMISSION

Dockets from No. **2014-187-E and back to 2008-196-E** – all that apply BLRA as a legal base for PSC Orders with ORS stipulations and reports.

IN MATTER OF: <b>Combined Application of SCE&amp;G ... for a Base Load Review [Act] Order and ... for Authority to Adjust and Increase Its Electric Rates and Charges.</b>	<b>PROTEST ON BEHALF OF OVER THREE (3) MILLION VICTIMS OF SCANA SCANDAL.</b>
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In behalf of millions of victims of multi-billion SCANA (NYSE:SCG) financial scandal, I, Joseph E. Wojcicki (“advocate”, “relator/informant of FCA of BLRA”, “energy consultant”, “Wojcicki”) do PROTEST another illegal, based on S.C. Base Load Review Act (BLRA) electric kWh rate increase.

It happened that no one more represent here:

- Veterans,
- Retirees,
- Children,
- And, of course, residential and businesses electric energy users that got such unnecessary financial burden since 2008.

This is the multi-count **PROTEST** not a comment because **here is the case of unethical crime committed by SCANA lawyers similar to the Enron scandal (2001). Note S.C. Code Sec 16-13-260.**

To oppose this PROTEST, SCANA shall deliver on time (30 days) minimum of 100,000 signatures from victims supporting the rate hikes via We the People - The White House <https://petitions.whitehouse.gov/>. Also, from the national echo/feedback read - <https://petitions.whitehouse.gov/response/building-government-serves-ordinary-americans-not-special-interests>

S.C. Attorney General Office gave Wojcicki the direct mandate of FCA of BLRA to PSC in November 2013 (his Engineering Analysis \_Exhibit W-15).

Sincerely,

Joseph E. Wojcicki – the energy consultants at [www.bypas-int.net](http://www.bypas-int.net)

820 East Steele Road  
West Columbia, SC 29170-1125

October 15, 2014

**Duke, Daphne**

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**From:** Easterling, Deborah  
**Sent:** Friday, October 17, 2014 8:25 AM  
**To:** Duke, Daphne  
**Subject:** FW: PROTEST tines 3 Million.  
**Attachments:** PSC-PROTEST14-10-15.doc

**From:** [joe4ocean@aim.com](mailto:joe4ocean@aim.com) [<mailto:joe4ocean@aim.com>]  
**Sent:** Thursday, October 16, 2014 5:25 PM  
**To:** PSC\_Contact  
**Subject:** PROTEST tines 3 Million.

*Dear Ms. Boyd:*

*Enclosed is*

**PROTEST ON BEHALF OF OVER THREE (3) MILLION VICTIMS OF SCANA SCANDAL.**

*Your Order 2014-785 still is assuming BLRA as a legal ground to allow overcharges SCE&G 675,000 customers.*

*You know that SCANA lawyers never did and cannot meet BLRA Definition. This way to cover costs of the nuclear project in Jenkinsville is wrong and unethical GA got \$6.5 billion for their twin project so SC could do the same. The Criminal negligence made millions of victims including veterans and retirees. PSC still have a legal and humanitarian chance to end this scandal as was done for Enron in 2001.*

*Sincerely,  
Joseph Wojcicki - the enrgy consulatnt and ex-intervenor.*

## **Duke, Daphne**

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**From:** Easterling, Deborah  
**Sent:** Friday, October 17, 2014 8:25 AM  
**To:** Duke, Daphne  
**Subject:** FW: Engineering Analysis  
**Attachments:** PDF\_min3files.zip

**From:** [joe4ocean@aim.com](mailto:joe4ocean@aim.com) [mailto:[joe4ocean@aim.com](mailto:joe4ocean@aim.com)]  
**Sent:** Thursday, October 16, 2014 5:36 PM  
**To:** PSC\_Contact  
**Cc:** [joe4ocean@aim.com](mailto:joe4ocean@aim.com)  
**Subject:** Engineering Analysis

*Dear Ms. Boyd:*  
*Enclosed is*

ENGINEERING, LOGICAL, AND COMMON SENSE ANALYSIS OF FALSE CLAIMED ASSUMPTION OF S.C. BASE LOAD REVIEW ACT (FCA of BLRA) USED TO GET INCREASED kWh RATES BY SCANA CORPORATION FROM SCE&G COMPANY RATEPAYERS AND THE CONSEQUENCES ("Engineering Analysis"); it is also available in form of eBook ([www.bypas-int.net](http://www.bypas-int.net)).

*You know that SCANA lawyers never did and cannot meet BLRA Definition.  
In this Engineering Analysis in 300% proof of FCA of BLRA.*

*PSC still have a legal and humanitarian chance to end this scandal as was done for Enron in 2001.*

*Sincerely,  
Joseph Wojcicki - the enrgy consulatnt and ex-intervenor.*

## **HOW TO iCOMPLAINT**

- **NOTE that SCANA (NYSE:SCG)/SCE&G SHALL GIVE YOUR-MONEY BACK for OVERPAID kWh rates.**
- **Do request YOUR MONEY BACK by an INDIVIDUAL- COMPLAINT**
- **To be Send to S.C. ORS/PSC**

[ ] Your rights to the individual complaint against SCANA/SCE&G come from Public Service Commission of South Carolina ("PSC") Consumer Information – File a Complaint <http://www.psc.sc.gov/consumerinfo/Pages/FileAComplaint.aspx>

[ ] Get and read Engineering Analysis to be ready to bring and present your case before ORS/PSC. Be sure to attach it to your complaint's form. The minimum are all pages of **ENGENNERING, LOGICAL, and COMMON SENSE ANALYSIS of FALSE CLAIMED ASSUMPTION of S.C. Base Load Review Act (FCA of BLRA) used to get INCREASED kWh RATES by SCANA Corporation from SCE&G Company RATEPAYERS and the CONSEQUENCES and at least Exhibits W-01, -02, -03 ("Engineering Analysis")**.

[ ] Be sure your Complaint got its separate docket number. Do not allow being only "protestant" or "intervenor" in other cases, e.g. in docket 2014-187-E. You should be *Pro se* Claimant ("plaintiff") against Respondent - SCANA/SCE&G. Be aware that over 5-year experience with ORS position on FCA of BLRA to be rather on SCANA side and ORS/PSC "standard procedures" were to defend / represent SCANA despite their mission/motto to represent the public interest. In any your first calls they will likely try to deny/stop your requests as we have proofs was already done in previous "kWh rate hikes" to protestants and intervenors.

[ ] Read and follow PSC Complaint Form Instructions >

**Individual Complaint Form Instructions and Procedure.**  
[http://www.psc.sc.gov/Documents/PSC\\_Forms/Consumer%20Information/Complaint\\_Form\\_Instructions.pdf](http://www.psc.sc.gov/Documents/PSC_Forms/Consumer%20Information/Complaint_Form_Instructions.pdf)

Your rights and restrictions come from above Instruction:

*"A...2. Individuals do not need to have legal representation to represent themselves before the Commission,..."*

*3. If additional documentation is necessary to supplement your complaint, attach it to the form. **DO NOT ATTACH ...PERSONAL IDENTIFYING INFORMATION ...***

*"B. Your complaint will be processed by the Clerk's Office and assigned a docket number."  
..."*

*"G. You must continue to make timely payments on any undisputed amounts on your account while your case is pending before the Commission or your service may be disconnected."*

Disputed are "increased kWh rates". For the so many months their amount is much greater that present charge therefore in most cases no needs to add more dollars to your present time payment. Undisputed are (according to SCE&G Rates/ tariff's) monthly fixed part. All parts must be indicated in SCE&G bill. Please note that in the

past, Tom Clements proposed/moved to indicate this part of monthly payment that is distinctly designed for the nuclear project as was in GA utilities billing. Guess what happened - ORS/PSC denied this proposal. Today, they automatically are taken the responsibility to handle this problem right now for each of individual complaints. To block your service disconnection just a \$10 to 15 payment for household could be a must. Any your uncertainty shall be reported or marked as for example: **"I understand that my payment of \$xx.xx is a fixed part or Basic Facilities Charge of my monthly payment that prevent my service from the disconnection."** For businesses this value depends of SCE&G Rates 1 to 28.

E.g. Rate 8 has **Basic Facilities Charge: of \$ 10.** **As Pro se you have rights to be protected from legal tricks.**

**Rate 23 for INDUSTRIAL POWER SERVICE** has Basic Facilities Charge of \$1,975.00

FYI -possible double check is: <https://etariff.psc.sc.gov/view/orgdetail.cfm?orgId=411> via PSC website.

[ ] Enclosing Engineering Analysis (also in electronic form of eBook added to the filled individual Complaint form) gives you about 300% proof of SCANA/SCE&G's FCA of BLRA, which allowed them to steal your money for over five years.

[ ] Knowing facts from Engineering Analysis gives your case 99.9% chance to win. 0.1% to lose is for a case where the Complainant cannot understand his/her rights and facts. Knowledge is the Power.

[ ] The SCANA FCA of BLRA is a criminal, ethical and civil case allowing you to request more than just offered by ORS/PSC return your overpayments as of Instructions A.4.

[ ] Calling City of Columbia Water Authorities you will find how close is 80 MGD of water evaporated by four reactors to the number of city water demand in Million Gallon per Day.

Noting these numbers give you another self-defense argument against SCANA false claims.

**SCANA/SCE&G have individually robbed you – they have to individually reimburse you!**

.....  
An Example of ORS/PSC Complaint's form filing.

(You need to replace the text in fields with your data according to ORS/PSC Instructions and enclose Engineering Analysis)

Date: 9/11/2014

Name: John Doe

Firm (if applicable): A Family Dental Discount

Mailing Address: 999 Energy Ave.

Columbia, SC 29199

E-mail: john.doe@xxx.com

Name of Utility Involved in Complaint: **SCANA/SCE&G**

Type of Complaint (check appropriate box below)

☒ Billing Error/Adjustments

☒ Payment Arrangement

☒ Wrong Rate

Have you contacted the Office of Regulatory Staff (ORS)? ☒ No

Concise Statement of Facts/Complaint: (This section must be completed. Attach additional information to this page, if necessary.):

I have been a SCE&G customer since 2005 May 1  
Since 2008 or since I became a SCE&G customer, I have been overcharged for my electric kWh usage. The increased rates were explained to me to be a part of the SC Base Load Review Act (BLRA). Lately, however, I have found that ORS and PSC has not completely checked the application for this, suppose to be legal ground -- the definition of BLRA for base load plant to be met by VC Summer Unit 2 and 3 new nuclear project in Jenkinsville, S.C. The kWh-rate hikes have significantly hurt my financial status, and have affected the well-being and health of my family and business. I do reserve all rights to self-defense, especially against corporate greed. Lawyers from the ORS/PSC and prosecutors must explain why felony (SC Code Sec 16-13-260) of pretense to our money was neglected and was covered up. I do pay the part of SCE&G bill to keep my service connected and working. All kWh rates since 2007 are in dispute. Their amount is much greater than one in present bill.

Relief Requested: (This section must be completed. Attach additional information to this page, if necessary.)

Refunds of all overcharges with the punitive damages and 12.27% ORS interest assigned to SCANA. Also the cost of the enclosed document, i.e. \$ 47  
Please find enclosed an engineering analysis that presents 300% proof of false claimed assumption that BLRA was used by SCANA/SCE&G to receive your approval to take my money for the nuclear project, thus sabotaging any chance of receiving any available Bush-Obama Stimulus money. I have found that none of the protests and/or interventions had changed ORS/PSC's blind approvals of SCANA/SCE&G request since 2008, which have always been under false pretense. All information of this case and just solutions shall be sent to: (a) me, (b) S.C. and U.S. legislatures, (c) S.C. and U.S. representatives and senators and (d) mass media outlets. **I understand that my payment of \$10 is a fixed part or Basic Facilities Charge of my monthly payment that prevent my service from the disconnection**

**\*\*I GIVE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA PERMISSION TO PUBLISH THIS COMPLAINT AND ITS CONTENTS ON THE COMMISSION'S WEB SITE (dms.sc.gov)> *Yes or No***

**Attachment to Complaint Form:**

***eBook or Engineering Analysis and Exhibits***

# SCANA (NYSE:SCG)'s affair—the Enron Style

## False Claim in South Carolina

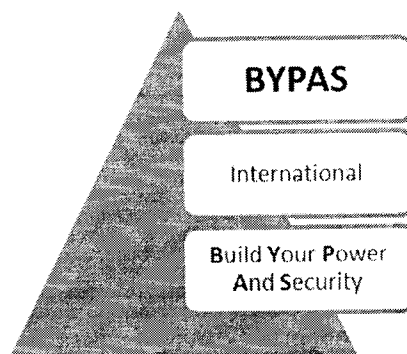


Water from the Broad River

**ENGINEERING, LOGICAL, and COMMON SENSE ANALYSIS of FALSE CLAIMED ASSUMPTION of S.C. Base Load Review Act (FCA of BLRA) used to get INCREASED kWh RATES by SCANA Corp. from SCE&G CUSTOMERS and the CONSEQUENCES.**

**by Joseph Edward Wojcicki**

Version 18, 2014 (Pending Copyright 2013)



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## **ENGINEERING, LOGICAL, and COMMON SENSE ANALYSIS of FALSE CLAIM of BLRA used to get INCREASED kWh RATES by SCANA/SCE&G COMPANY and the CONSEQUENCES (“the Engineering Analysis”).**

### **I. INTRODUCTION. THE CASE OF FALSE CLAIM OF SOUTH CAROLINA BASE LOAD REVIEW ACT (BLRA).**

I, Joseph “Joe” E. Wojcicki (“relator”, “Wojcicki”, “petitioner”, “intervenor”, “energy consultant”, “huge projects’ verifier”, “technical trouble-shooter”, “safety protection expert”, “explosion prevention/protection designer”, “electric transportation expert”, “power transmission expert”, “hydro-power consultant”) do report a case of **FALSE CLAIM** that the new Units 2 and 3 in Jenkinsville, SC will be **BASE LOAD PLANT**. Wojcicki is the only one, original investigator who found this false claim.

**SCANA’s (NYSE:SCG indicates US Corporation) legal team represents the case for its subsidiary SCE&G.**

South Carolina Electric and Gas (“SCE&G”) is using this false claim to get approved by State Public Service Commission (“PSC”) of South Carolina (“SC”) their **Combined Application of South Carolina Electric & Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity and for a Base Load Review Order for the Construction and Operation of a Nuclear Facility in Jenkinsville, South Carolina (“SCE&G Project”, “Application”)** to cover this project’s costs by collecting funds via increased electric energy (kWh) rate. Increased sums must to be paid monthly by their customers. Their number is indicated by SCANA/SCE&G to be today over 670,000. Co-owner Santee Cooper has over two million customers.

In 2007-2008 SCANA/SCW&G had available Bush-Obama Stimulus funds, exactly assigned to nuclear power plants in so-called Nuclear Renaissance. Instead they decided to use SSE&G ratepayers money under pretense of SC BLRA, Today, we know, what this Engineering Analysis has found to be in 300% false claim with SC Code felony aspect.

Initial legal consultations revealed that:

- \_ Applicant misled all State agencies, including Office of Regulatory Staff (“ORS”) and Public Service Commission of South Carolina (“PSC”) with false claim that their plant can be a **base load**.
- \_ Applicant misled Federal Commissions (at least NRC, SEC, FERC) and Government Departments, Services and Authorities – e.g. DOE, IRS,
- \_ Applicant misled investors including “forced to invest” ratepayers.

\_ Right now, no other laws apply for an investigation including environmental ones. Wrong is way to finance the project.

Wojcicki as an energy consultant sees all available technologies to produce electrical energy, including nuclear, as reasonable if plants are equipped with reliable modern safety means to prevent disasters. He initially brought several problems in energy production and distribution as well as with cooling water before PSC at the hearings and in his motions as an intervenor.

The **SCANA/SCE&G Project** was in the first group of applications presented to Nuclear Regulatory Commission ("NRC") in so called Nuclear Renaissance.

The site of Jenkinsville was elected in 2005 with neglecting, *inter alia*, real full availability of cooling water.

PSC opened docket # 2008-196-E for the Application on Friday, May 30, 2008.

How you may see – the Applicant used **Base Load Review Act ("BLRA")** (A16, R28, S431 - SC Code Section 58-33) to get approved their Application and to get an access to ratepayers' [other people] money via increase kWh rates.

PSC organized and conducted several hearings but the undocumented Base Load claim was never "a problem to discuss". Economical energy distribution by locating new AP 1000s reactors closer to real base loads, i.e. close to Charleston – Savannah region was disrespected.

There are undisputed two requirements that allow applying BLRA for a plant. The plant to be the Base Load must fulfill BLRA definition:

*"Base load plant' or 'plant' means a new coal or nuclear fueled electrical generating unit or units or facility that is designed to be operated at a capacity factor exceeding seventy percent [70%] annually, has a gross initial generation capacity of three hundred fifty megawatts or more, and is intended in whole or in part to serve retail customers of a utility in South Carolina, and for a coal plant, includes Best Available Control Technology, as defined by the United States Environmental Protection Agency, for the control of air emissions."* (BLRA - Section 58-33-220(2)).

Annual [Energy] Capacity is a simple function of multiplication = Power (MW)\* time (1 to 8760 hours/year) with Power (another "*gross initial generation capacity*" because is measured in MW, of minimum 350 MW). While Power is a constant value -the energy becomes the proportional function of plant's Full Power operation hours. MW and kWh are international units known for many years for HS students and, of course, electricians from utilities. The new reactor AP 1000 has 1,117 MW, therefore, it fulfill this strange term of "*a gross initial generation capacity.*"

Utilities sell their product – electric energy measured in kWh by meters installed at customer locations. You may call it net energy. Energy losses are (a) the energy losses on transmission lines that are a function of the lines' length, (b) in equipment e.g. transformers. In energy capacity calculations, losses must be subtracted from energy produced by generators (measured loco plants, e.g. in MWh and could

be called gross energy) to figure out the energy sold to loads, especially to Base Loads. The AP 1000 units are designed to operate at full rated / nominal power all the time minus refueling time. Toshiba / Westinghouse documents estimate a potential 93 % energy capacity in the years that have time for refueling. Because designed refueling is each 18 months, some years may reach 100% energy capacity, of course if other conditions allow this.

[http://web.ornl.gov/sci/nsed/outreach/presentation/2006/Belles\\_Seminar\\_R1.pdf](http://web.ornl.gov/sci/nsed/outreach/presentation/2006/Belles_Seminar_R1.pdf)

Locating their plant away from base load [geographical] center, SCANA/SCE&G accepted transmission losses on planned and designed new lines and transformers that maybe estimated to be up to 10% (estimated by experts at hearings). Therefore to reach 70% [sold / net] energy the generators must cover 10% losses by working at least 80% of 8760 hours per year (h/yr). To fulfill the definition of a Base Load Plant in Jenkinsville location, the capacity factor at generators [gross energy] should be **70 + 10 = 80%!**

**The most important in nuclear power is cooling water. Designing and following redundant [the must] verification process, the approving Application Commissions must find beyond any doubt that availability of water from the Broad River will be over an uninterrupted duration of  $0.8 * 365 =$  [minimum] 292 days per year in each of 60 years of reactor life expectancy.** Instead, the cooling water problems were silenced or ignored. None of logically required permits and/or license amendment (FERC) had been presented by Applicant and nor forced by Commissions.

Recorded by SCE&G on September 12, 2002, the Broad River flow of 26 (daily 48) cfs had to be a signal to investigate professionally the cooling water availability. Unit **cfs** stands for **cubic feet per second**.

None of the Parties in the Review Process except Wojcicki brought up the cooling water problem that must be withdrawn from the Broad River. Nobody forced to seriously and deeply analyze the problems of minimum flow and/or droughts in SC.

The Jenkinsville location with cooling water available only from the Broad River sets brutal conditions / requirements for all regulatory agencies. NRC already washed their hands (as did Biblical Pilate) finding small environmental impact for surface water in their Final Environmental Impact Statement (FEIS). Despite Commissions' claims of reviewing projects of both plants, i.e. Lee (by Duke Energy) and Jenkinsville Units 2 & 3 (by SCE&G) the total of the new plants request for average 107 Mgd (or MGD) is never mentioned in NRC FEIS documents and, of course not analyzed in full extend in Broad River present and future (60+ years) hydrology. MGD stands for Million Gallons per Day.

All responsibility is now on SC State. Note that some SC legislators and professors from USC and Clemson initiated collecting scientific and engineering opinions on minimum flows. These initiatives are presented here in two sources: (a) List of Source position [6] and (b) Exhibit W-02. None of similar studies with positive outcome for both plants was delivered by Applicants therefore false claim of Base Load Plans had to be already found and denied in "A Fair, Open, and Efficient Regulatory Process That Promotes Cost-Effective and Reliable Utility Services" (PSC "Our Mission").

## II. WHAT HAD TO BE PROVEN FOR BLRA. REALITY TESTS.

For Base Load Plants, they must have analyzed engineering calculations of data from trustful sources. In such large Electric Energy Project, its Application must have technical type documents and they must be verified by independent experts / panels in **at least three parallel verifications / troubleshooting**.

\_ The First Criterion is: The Generators shall be as close as possible to the center of High Density Load (MW/sq. mile) + High Power Users (MW) so energy loss will be minimal (see Exhibit W-08).

\_ Optimized for reasonable [12%] reserve.

\_ Critical power outages indicated and solved.

\_ Grid simulations with all aspects including reverse directions in energy transmission.

\_ Stable dynamic cooperation via long line to the grid. This was done with some numerical errors that have not influenced analysis outcome.

\_ Some other positions from the proper check list do not apply to the BLRA.

To Use BLRA as a legal and fair ground to request money from ratepayers, Application shall have works to **prove beyond any doubt** that the **Base Load Definition** can be demonstrated. Finally – you will find – they have failed to show availability of cooling water to run nuclear station for minimum of 292 days per year with the uninterrupted full power generation.

Logistics of conceptual project with prudent engineering required full and redundant analysis even before first Company Application, i.e. at the stage of collecting documents in the full scope necessary to make a Corporation decision to go for such a large project. How it is shown above the real proof could be on the level of 112%, where +12 % is the reserve motivation / criterion from SCE&G used in their initial future demand analysis.

In this redundant certainty, a new set of generators must be able to produce at least the 80% (as the BLRA's 70 % corrected to Jenkinsville location) energy capacity. Again, Base Load Review Act (BLRA)-Section 58-33-220(2) requires such minimum. **This False Claim is simply revealed as There is No Water Available for Cooling in an uninterrupted duration for over 292 days per each one period of 12 Months in 60 years of reactors' life. PERIOD!**

The [energy] capacity is calculated here as:

$0.8 (80\%) * 2 \text{ (Units)} * 1117 \text{ MW (AP 1000 output electric power)} * 8760 \text{ hours (per year)}$  Where:

\_ **0.8 or 80%** is gross energy to be generated to cover also losses in the transmission lines to the center of predicted base load (electric energy users around Charleston and Savannah). SCE&G plans to build additional (parallel) High Voltage (HV up to 230 kV) lines from Jenkinsville to these Atlantic shore locations – check out maps from Exhibit W-08. The energy losses in this (up to 10% of base load) were, *inter alia*, confirmed by experts at the hearings in 2008 without objection from SCANA/SCE&G. That

was, even necessary in serious electric energy production and distribution calculations / analysis before submitting project. Unfortunately it was not in dept presented in Application. Product (kWh) is selling loco customer (distributed from Base Load Center), higher losses of energy are the result of wrong location planning.

\_The Project plans to install **two (2)** new units of Toshiba / Westinghouse AP 1000 reactors that have 3,400 MWth thermal power and **1117 MWe** electric power each indicated as Units 2 and 3 in addition to existing Unit One 966 MW.

\_ **8760** is an annual number of hours (8760 h/yr) used in electro-energetic calculations

Note that AP 1000s have designed capacity of 93% because the refueling is done ones per 18 months. Refueling requires reactor to be shut down. To fully use AP 1000 capacity the cooling water must be available all 8760 hours per year, i.e. each 24 hours/day \* 7 days per week \* 52 weeks per each year in next 60+ years. The character of such massive nuclear process inertia – heat and electric energy production does not allow any fast restart and fast shut down that are available for other technologies. Unpredictable variation in water inflow to Parr reservoir (on Broad River near Jenkinsville) complicates the situation even more by limiting numbers of cycles shut down – restart. Two or more such operational cycles of start-stop cannot be planned annually. From SCANA/SCE&G (even not fully documented) concept -AP 1000s shall be in continuous, uninterrupted operation.

Therefore, Applications had to prove:

- (a) The existence of at least  $0.8 * 365 (= 292)$  days per year water storage in Monticello reservoir (with water refilled from Parr reservoir). They reported *ex cathedra* only **76** days. This number was never verified and the time delay for shut down was never compared to delay before restart – back to operation. In any analysis, it cannot be fully approved as “additional time reserve”. Note that volume will have temperature of over 90 deg F in the water top surface layer, which is available to enter reactors cooling systems in the summer time. Intake must be ready to move water in range from 83 cfs to max 137 cfs and the hot season higher value happens to be in the time of low flows / level of the water in the Broad River when the Monticello’s refilling is forbidden from Parr reservoir located on and supplied by the river. This situation is not analyzed in this project. Likely it does not exist also for identical Duke (Lee) Project in Cherokee County. The long practice used with hydropower at Fairfield Pumped Storage Facility (FPSF) indicates proven 24-hour cycles: a half time pumping up then next half time hydro-power generating. The cycle can be seen on fluctuation of levels of the water in reservoirs [7]. Such cycling cannot apply to reactors water cooling system but must be carefully review in hydro-management in droughts. For controlling /adjusting max power to the grid, Monticello has to have **365** days/year storage.

OR

- (b) Adequate inflow to Parr reservoir from upstream Broad River for the non-interrupted duration of **292 days annually**, i.e. in any of 12 months e.g. in climatic year. **Any 12-month duration that is not fulfilling this requirement automatically disqualifies usage of Base Load Plant definition.** Everybody who wants apply BLRA must show in historical

trustful records as well as in the perspective of 60 year reactor expected life this 80% or 292 day annually availability.

Notice 1: Any previously used legal tricks of “unnecessary prediction for the future” are now fully overruled by Climate Change.

Notice 2: The droughts affect the ability to work of nuclear plants as base load units. The availability of water for cooling must be checked for its flow and temperature. The flows must be over the minimum low flow limit and temperature below its appropriate physical limits –tested and designed. SC DHEC required 95 deg F at the end of the cooling system. The historical records show water temperature in some summers to reach values over 90 deg F. Nuclear Regulatory Commission (NRC) already found Southeast region with their existing 24 reactor to be in the drought hazard zone. Also many facts of shutting down reactors in the USA and over the world were recorded in this Century as being caused by heat waves and climate change. Practically, it is seen in seasonal extreme decrease of the available water volume. SC recorded already many years of drought seasons in XXI Century (Exhibit W-02).

Notice 3: Any analysis of availability of cooling water for reactors must look for sources that can deliver volume on time (here measured in cubic feet per second - cfs) with potential to meet physical needs of their systems including temperature factor. With electing the Broad River as the source, it must be understood and applied all limitations in the time of natural low flows and levels. The criteria of limitations, i.e. what inflow to Parr reservoir is high enough to allow pumping (refilling) up water to Monticello reservoir must indicate the highest value of SC low flow limits and this must be shown on real records of flow to get the answer how many days are for save and certain availability **over 292 days annually**. Such analysis is not present in documents submitted by Corporation and/or ORS. **Using arbitrarily selected numbers and creating misleading percentages is not sufficient to prove water availability without any doubt to get threshold given in BLRA for applying it to force money from ratepayers for this investment by “knowingly makes, uses, or causes to be made or used, a false record or statement to get a false or fraudulent claim paid or approved by the State [SC commissions and agencies] ;”(False Claims Act ). The same applies to US FAC**

Notice 4: In the situation which was created by very weak, non-engineering scope of submitted Application [for Base Load], without extensive scientific analysis the only serious approach to verify BLRA claim is to fetch all reasonable / prudent criteria for secure minimum flow in the Broad River for at least four AP 1000 units (two SCE&G and two Duke’s). Duke’s / Lee plant will use water from 99 Islands reservoir which has lower (about 50% of Parr) flows as limits but the same demands for their reactors, so it is very possible that inflow to Parr reservoir will decrease the number of days for

adequate withdrawals available to Jenkinsville plant. It, of course does worse situation for SCE&G especially to get higher annual capacity, i.e. – energy production measured in TWh/yr just to compare with Unit 1 results. Existing hydropower of 511 MW (FPSF) cannot be ignored in overall analysis.

**Notice 5:** Parr Shoals reservoir has FERC P-1894 license since 1974 till 2020. It was **not amended as required** and was not mentioned in the Application for BLRA Order. SCE&G has obligation to control – assure min flow of 800 cfs in nine months (see <http://parrfairfieldrelicense.com/documents/presentations/PARR%20HYDRO%20AGENCY-NGO%20MEETING%2009-19-2012.pdf> )

“PARR HYDROELECTRIC PROJECT OPERATIONS Parr Development... FERC LICENSE: Remainder of year (June-December-February): 800 CFS daily average flow and 150 CFS minimum flow , or average daily natural inflow (less evaporative loss from Parr and Monticello Reservoirs) ...• This means that when inflow minus evaporation falls below 800 CFS (1,000 CFS March - May), we [SCE&G] do **not get to keep any water – what comes in must go out. As a consequence - No water is allowed to pump to Monticello Reservoir!**”

**If inflow is lower than 150 cfs SCE&G reservoirs must add water to downstream!** As the criterion from license we have the first minimum value of **800 cfs** that had to be analyzed if it would be a highest/maximum criterion of other [cfs] limits from other criteria. This value is expected to increase in relicensing in 2020.

**Notice 6:** SCANA/SCE&G brought another number -7Q10 = 853 cfs as suppose to be a minimum criterion which of course overrule (as exceeding 800 cfs) FERC license in nine months leaving 1000 cfs as usually easy to respect in other three months in the climatic years. This criterion was silenced later by NRC.

**Notice 7:** SC DNR questioned rule 7Q10 as the only one criterion in SC (see Exhibit W-02) to be reviewed in NRC Final Environmental Impact Statement (FEIS). NRC brought (see Exhibit W-09- the NRC letter to Wojcicki dated 2012 April 3) a new number = 1% of the average flow value to their review also keeping the misleading idea of percentage – this time to be even lower value comparing to previous “less than 10% of 7Q10” from SCANA/SCE&G EIS numbers. Another misleading tries to avoid possibility to ridicule the “percentage method / model” by recalculating %% of reactors needs which would be 2\*137 cfs in hot season for four reactors cooling needs) to recorded minima.

Recorded minimum of (26 cfs) or daily 48 cfs (9/12/2002) in denominator gives **570%** - not 1 or 10% misleading percentages cited by NRC and Applicant. This should indicate the ridiculous “percentage arguments”!

None of 150 or other lower than 853 cfs assumed minima may save Claims of Base Load Plants.

Reverse recalculating from this **1% of the [NRC] average flow** the safe assumption of AP 1000 needs in drought gives:  $100 * (2 * 137 \text{ cfs}) = 27,400$  cfs if NRC claims to include Duke another 2 AP 1000 units. Such value seems to be ridiculer comparing to some numbers from USGS rather presenting values somewhere between 6500 and 9000 cfs.

The “average flow value” is used in SC criterion of 20% Rule which produce the higher limit from all three criteria. In redundant investigation of False Claim of BLRA – NRC FEIS plays no role anyway. It only shows how weak are calculations in such important documents done since 2005 to now. It also indicates how important are independent serious verifiers. At least three of them.

Notice 8: The Broad River has much less studies than e.g. Saluda. The new SCE&G license for Lake Murray remodeled its dam. Also Catawba River has even special low inflow protocol (LIP). In this case we have to approach conservative criteria and opinions, e.g. from scientists, some engineers from SC Departments handling water and public services. NRC finding only “a small effect of water flow on environment [FEIS]” confirmed that this aspect has nothing to estimate Base Load parameters for SCANA/SCE&G Project located in Jenkinsville.

Notice 9: NRC acknowledged several Wojcicki’s inputs [25]. In this document very interesting questions and list of water problems was indicated by Vejdani, Vivianne but no serious results of review in FEIS may be found for both of us. Anyway, BLRA aspect is brought only by Wojcicki.

Notice 10: Water from the Broad River, for most of the year, delivers more than 60% of water inflow to **Congaree River which is vital for Great Columbia** area in many aspects. This river’s width is greater than the Broad river; therefore at the approximately same flow rate its level is lower. Observations for about three years indicate that Columbia Gage Station (USGS 02169500) recorded level of four feet is representing minimum flow of 5,000 cfs. This flow in the other cross-section of the river indicates its level below one foot. (E.g. under the Hwy # 1 bridge). This 5,000 cfs flow could be another criterion to be empirically set for minimum flow measuring inflow to Parr reservoir.

There is a Scientific opinion (cited from document [6]): *...“Users. A minimum stream flow law should consider all users within a watershed. If a minimum stream flow is lower at a downstream location than at an upstream location, then the downstream flow should take priority at the upstream location.”*

In a situation when Broad River delivers over 60% of inflow to Congaree River a 3,000 cfs minimum low flow criterion could be form.

Anyway such criterion should enforce seriousness of proper analysis but could be here-for practical reason skipped if other (lower limitations) already can indicate non-realistic

expectation to have adequate flows over 292 days annually which was proved in knocking-out BLRA claim by Exhibits W-01, W-02, and W-03.

Notice 11: NRC FEIS [25] Cumulative impact 7.2.1. has such many numerical errors and lack of consistency that cannot give any inputs and/or criteria to correct and do full verification for the purpose to establish limits for low flows. NRC already classified SC to be in drought zone at the beginning of XXI Century but ignores this for Jenkinsville. In Climate Change NRC assume temperature increase in range 2-3 deg F while [24] SC indicates 10.5 deg F in the perspective in the middle of reactors' life. Responsibility is in our State to protect our vital resources and do work according to PSC Mission and do respect False Claim Acts [2], [3].

NOTE 12: The Base Load False Claim knocking-out punches are in Exhibits W-01, W-02 and W-03 presenting that only 42 to 50% of 365 days/year time existed to legitimately cool reactors. %. Possible Congaree River effect on a new Parr + Monticello relicensing in 2020 lowers it below 30% (Exhibit W-12). These %% are lower than BLRA required minimum of 70%, Jenkinsville location increase this requirement to 80

NOTE 13: Recorded (Exhibit W-12) minimum flow of 26 (daily 48 less than 150 for a week) cfs had to trigger request for investigation and full hydrological / energy studies and analyses.

### **III. THERE WAS/IS/WILL BE - NOT ENOUGH WATER TO COOL REACTORS IN JENKINSVILLE TO MAKE THEM BASE LOAD PLANT. HOW SCANA/SCE&G MISLED PUBLIC AND REGULATORS.**

#### **BRIEF**

The problem of necessary rather higher minimum flow in SC Rivers was known and discussed at least by the first decade of XXI century. That means, for sure, in 2005-2009 when Application was prepared and submitted until PSC Order 2009-104(A) was issued. To get status of BLRA this problem SCANA/SCE&G had removed from any discussions, studies, hydro-power relicensing, etc. According to this strategy, SCANA/SCE&G has not presented any water permits and/or amended license for Parr reservoir. There are no proofs of 292-days per year continuous availability of water for cooling reactors.

SCANA/SCE&G has never presented full analysis or hydrological studies misleading Commissions (ORS/PSC and NRC) and public. They believed that showing only a ratio 83 cfs to 7Q10 number of 853 cfs (i.e. **less than 10%**) should be enough to get BLRA's money claim approved. How we see today, they got that money on this false claim.

After SC DNR letter to NRC (Exhibit W-02), and several questions at NRC scoping hearings (including Wojcicki's) – a new percent appeared (Exhibit W-09) this time as low as **1% of average annual flow of the Broad River**. NRC in its FEIS section 7.2.1 decided that environmental impact is small, *de facto* switching responsibility to review *de novo* BLRA to State of SC. This task is still not accomplished.

Instead it is increasing great financial burden on ratepayers via false assumption of BLRA. It creates also loses and damages for Government by sabotaging Bush-Obama Nuclear Renaissance Stimulus.. PSC blocked Wojcicki from intervening, e.g. in their Order 2013-481 (docket 2013-150-E) on the ground of BLRA (*sic!*)! [22], despite the fact that he is a SCANA shareholder. Any SCANA “legal objectives” were good enough for denials even there were completely baseless and against facts. Each annual hike increased the sabotage done also for the State of SC and its economy.

Today, SCANA/SCE&G legal team claims that Parr reservoir licensing process has nothing to do with their nuclear plant (*sic!*). It is another False Claim. FERC P-1894 license ends in 2020; in the year when both new AP 1000 will be operating – sorry, but **not as baseload units!**

## **FINDINGS.**

### The sources of recorded water flows and water levels in the Broad River.

There are two United States Geological Survey (USGS) gage stations monitoring water flow in the Broad River associated with Parr and Monticello reservoirs.

Before (upstream inflow) Parr reservoir at Carlisle SC - USGS 02156500 and after (downstream) Parr reservoir at Alston SC - USGS 02161000. Between Carlisle and Parr two rivers: Tyger and Enoree join the Broad river. In the first approximation, evaporations are about Tyger and Enoree Rivers added inflows to the Parr reservoir allowing direct comparison indications from this station to Alston.

The Congaree River flow is monitored by: USGS 02169500 CONGAREE RIVER AT COLUMBIA, SC. Congaree River gets its water from the Broad and Saluda Rivers

The Broad River does supply water to the Congaree River in a range of 60 to 80%. The Congaree River (under the Columbia Gervais bridge) water level at its minimum is a highly correlative function of the flow monitored at Alston.

The Saluda River does supply the rest. Its flow is monitored by USGS 02168504 SALUDA RIVER BELOW LAKE MURRAY DAM NEAR COLUMBIA, SC

Please note that Reality Test must be done on real records of flow measured here in cfs and on real time to figure out when the cooling water can be pumped [7] to Monticello for the purpose to get its water level high enough to enter intake at max designing 137 cfs. Real inflow to Parr reservoir below highest minimum flow limit does not allow pumping any water to Monticello reservoir [7]. Flow of 83 cfs presents needs of reactors outside the hot seasons.

### EXHIBIT W-03

The first easy available for public 12- month record of water flow in Broad River, just downstream Parr dam was from Alston gage station since 2007-10-01. See Exhibit W-03-2. This record could be requested and analyzed by ORS/PSC before their order # 2009-104(A).

If such record could be presented -it should force a denial of the SCANA/SCE&G False Claim of BLRA because it shows only 42-50% water availability in hot season not as required by definition: original 70% and adjusted to Jenkinsville 80% of so called [energy] capacity.

Check out Exhibit W-03 where four lines of SC minimum flow criteria are shown.

First-perspective the highest as a function of Congaree River water level. Estimated to be 2000 to 3000 cfs. These lines are to show possible Congaree influence in relicensing but it could be significant here Other criteria are killing anyway entirely concept of BLRA application.

Second – minimum recalculated for Rule 20 including NRC 1% [undisclosed fully and clearly by NRC] “average flow”

Third – presented by SCANA/SCE&G 7Q10 criterion -853 cfs

Fourth – FERC P-1894 licensed 1000/800 cfs that are very old since 1974 and required to be amended for this nuclear enhancement. It had to be requested then to be presented at PSC hearings and reviewed for application BLRA before PSC order 2009-104!

The recorded Real Flows (in cfs) as a function of real time (0 to 365 days a year) are the true indicators for finding a long duration of available cooling water, i.e. uninterrupted 292 days in each year in the history and perspective of extra 60 years of AP 1000s life. It was and is a criterion to accept BLRA as a base to increase rates and get “other people’s money” as funds to cover construction costs.

#### EXHIBIT W-01

Statistics do not produce directly a picture of availability of such uninterrupted duration. But some general suggestion maybe used from statistics just to see in general, the water situation; for example to suggest the start of specific studies. For our initial analysis document in Exhibit W-01 is kind of double check above findings from Real Flow records. Of course, USGS document is prepared for academia professors and certainly will get their support for “water conservation” and “minimum flow protections” as is seen in document [6].

Figure 1 does dramatically reveal very low minimal flows in the last decade,

Figure 2 For the Minimum Flow limits – shows availability of water as about 50% - which also is less than 80/70% BLRA definition

Added Page 5/5 -the flow graph for climatic year 2008 April 1 to 2009 March 31 also indicates only 50% and much less respecting the Congaree River’s needs.

NRC ignored USGS source before their final approval SCANA/SCE&G Application in March 2012. Now the SC State is in charge.

The first reading of above two Exhibits (W-01 & W-03) will direct, even the most skeptical reviewer, to find application of BLRA to be a False Claim. As well each trial jury will find the same fact.

Can the future help SCANA/SCE&G in this situation? Of course NOT. The situation will be worsening for several reasons:

1. More surface water users.
2. Duke Energy Carolinas (DEC) plans two AP 1000 upstream the Broad River which will intercept water before Jenkinsville.
3. Climate change, i.e. less water with higher temperature.
4. General SC State tendency to save water
5. Alternative solutions with seawater for cooling AP 1000 are superior over water from rivers. Examples: China, Florida, France etc. Even Fukushima got rescue from the Pacific water for cooling down their crippled reactors after disaster in 2011 while Chernobyl could not have such volume of emergency water in 1986. Jenkinsville location eliminated this option.
6. Increase of population by about 500,000 in the Broad River basin in the future.

#### IV. FINANCIAL SITUATION - UPDATED on SEPTEMBER 4, 2014

US Government has been harmed by rejection of Bush-Obama's Stimulus, i.e. loans designed for Nuclear Renaissance and replaced / blocked with illegal False Claim of BLRA to forcible collect money from SC electric energy users (forced investors).

According to Exhibit W-04 SCANA/SCE&G has spent through 2012-08-31 approximately \$1,639,481,000 in that year dollars on the new nuclear construction project. Now, it could reach \$3 billion dollars and more if ORS/PES will approve next 3% increase. SCANA/SCE&G request is in PSC docket 2014-187-E dated 5/20/2014 doc # 250793. ORS report -doc # 251718 dated 7/30/2014 is still based on BLRA despite the Wojcicki's challenge – doc # 251229 dated 6/23/2014 and other people's protests.

This amount was removed from SC and USA economy, and from IRS taxation. SEC rules were also violated. SCANA does mislead investors about [non]availability of Federal secured loans instead is presenting their enthusiasm with BLRA. Following statements are cited from **[26] where SCANA reveals rate increase per year in their Q & A** (end of 2013):

*Q: How will the new units affect my rates?*

*A. We estimate that our customers will see an average rate increase of about 2.5 percent per year during construction of the units [possible till 2020]. The **Base Load Review Act**, which is a state law enacted in 2007 [without SC Governor's signature!], effectively reduces the cost of building nuclear power plants in South Carolina by allowing the state's regulated utilities to adjust rates annually during construction of such plants to recover related financing costs. Paying financing costs while construction is ongoing, as opposed to waiting until the project has been completed [very possible in 2020], lowers the cost of building the new units at V.C. Summer by about \$1 billion, which in turn reduces the amount our customers will pay through rates for such things as the cost of capital, depreciation, property **taxes** (sic – only property ones!) and insurance associated with the project. We estimate this will save our customers at least \$4 billion in electric rates over the life [60 years] of the new units.*

**Q. Where are you with the loan guarantee process? Do you need a loan guarantee to fund your project?**

**A. We have provided information to DOE as part of the loan guarantee application process, but DOE has not provided us with specifics related to terms and conditions that might be attached to the loan guarantees. Without such information, we cannot effectively determine whether it would make sense for us and our customers to participate in the loan guarantee program. We have been consistent in stating that the loan guarantees are not essential to our ability to fund our nuclear construction project.**

A comment: How ironic are above Answers, comparing to the fact that Georgia utilities got \$6.5 billion from DOE in February 2014 for their twin project in Vogtle, GA; the loan without costs! (<http://www.eenews.net/stories/1059998194>). Note that loans (\$3.5 B and \$3 B) were delivered to utilities / companies not to corporation, SCANA in SC still enjoy 12.27 % interest from ratepayers money given it by ORS!

**SCANA / SCE&G do mislead investors and SEC with BLRA.** In their Quarterly Report ending 2013-09-30 do read in its fifth paragraph **5. BLRA Regulatory Proceedings "** *The briefing of the appeals of Commission Order No. 2012-884, which authorized updates to the cost and construction schedules for the Units under S.C. Code Ann. § 58-33-270(E), will be concluded during the first quarter of 2014."*

SCANA (NYSE:SCG) Corporation requested new set of shares on the same pretext and got approval.

Comparing 2013-09-30 140.55 M outstanding shares to their number before Application 116.98M you may find the increase of over 23 M shares. Their values were between \$30 and \$52 per share. The highest increase is recorded in 2013 (Ychards.com)

Searching for SCANA stock and SCE&G bonds you may find in the Business Wire of Fitch evaluation based on BLRA and their notes: "To date [2013-06-26], BLRA rate increases have been implemented in each of the **past five years** and, in each case, **SCE&G received 100% of its requested increase.**" As well **"Change in the BLRA Process: While not expected, any change in the BLRA process that affects the timeliness and amount of nuclear cost recovery could adversely affect current ratings [Fitch BBB+]."**  
<http://www.reuters.com/article/2013/06/26/ny-fitch-ratings-scana-idUSnBw266391a+100+BSW20130626>

*"Sizeable Nuclear Construction Program: The ratings also reflect the substantial financial commitment of SCE&G's on-going construction of two nuclear units and the **beneficial impact of the Base Load Review Act (BLRA)**. SCE&G will own 55% of each nuclear unit. Staying on schedule and within budget is critical to maintaining the existing ratings. Approximately \$2 billion of the \$5.8 billion projected cost was expended through 2012. Peak spending occurs over the three-year period 2013-2015, aggregating approximately \$2.8 billion, with a peak of about \$1 billion in 2014."*

Such statements and many other facts that nobody questioned BLRA in any documents, orders, hearings etc. do indicate the full **originality of Wojcicki's findings** in these voluntarily conducted studies.

In ORS presentation on 2013 July 10 many of milestones are delayed, one even 17 months. ORS has no power to make "law enforcements" – BLRA does not give them such rights. They do limited observation and give opinions. For example ORS reported, "Wall Street [SEC] is very happy with the application of BLRA in SC".

It is a proof how far / high this False Claim has gone in misleading. It reminds the infamous Enron, well-known multi-billion energy affair.

SCANA/SCE&G financial position was presented in their Proxy Materials in 2013 and 2014.

Mr. Kevin Marsh – SCANA CEO answering Wojcicki's questions (Exhibit W-10) on the SCANA shareholders meeting stated that SCANA always had and can ~~now~~ consider and get other sources to finance their projects. But in 2008 they decided knowingly misled with BLRA as "the best source for investment" hiding a lack of water to cool reactors in min. 292 days.

In today's situation, after returning of illegally collected monies, the USA government should have multi-billion reserves for Nuclear Renaissance. SC has all senators and representatives supporting nuclear power investments including Democrat Mr. Clyburn whose daughter was the Commissioner in PSC at the time of first PSC approval of false claims of BLRA in SCANA/SCE&G Application. Businesses would keep their competitiveness with previous level of pricing their products and services and reinvest returned funds and Government could get their taxes (including high corporate). SC budget (Exh. W-14) would increase. Strong nuclear scientific and technical potential of SC, including Savannah River Site complex could restore the trust in Nuclear Renaissance that was hurt by Fukushima disaster and blocked NRC licensing of other nuclear projects by the court in 2012.

## **V. GENERAL POLITICAL AND ECONOMICAL ASPECTS**

**Perspective Voters:** Somebody or a team who will restore old low kWh rates for over three million South Carolinians will earn their votes for sure. This is a political very strong aspect. Please also note that SC False Claim Act [2] was sponsored by Republicans and Democrat Sheheen. He was also personally involved in [5] South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act. It is possible that he could use water arguments in his Governor's race in Election 2014.

**Intensified ethical and criminal "cleanups" in judicial system.** There are several ethical investigations, some with criminal aspect in SC Courts. Interesting was U.S. District Court Judge Margaret Seymour sentencing Richard Breibart, Lexington lawyer and mentor at the University of South Carolina law school, to a 63-month imprisonment in March 2014 for his \$2.4 million fraud case, which had up to 88 victims. ([http://www.wach.com/news/story.aspx?id=1015029#.U\\_s18c3A8X4](http://www.wach.com/news/story.aspx?id=1015029#.U_s18c3A8X4)). How does this compare to SCANA scamming millions of victims and receiving billions of dollars? Answering this question PSC have chance to correct finally the way of financing SCE&G project without their ratepayers overcharging.

**Nuclear Renaissance and SC / USA economy interest.** On the other hands, SCANA/SCE&G after switching from BLRA "financing", still have opportunity to utilize huge federal funds reserved for Nuclear Renaissance Power Plants. This is an argument for pro-nuclear voters.

In new PSC docket 2014-187-E readers may find interesting brief by Dr. Wilder –economist and SCE&G customer in his doc # 252240 dated 8/29/2014. It presents very negative ORS/PSC decisions for financial situation in SC under BLRA.

## **VI. SUMMARY-CONCLUSION**

- SCANA/SCE&G knowingly made a False Claim of Base Load Plant in their Application.
- SCANA/SCE&G failed to prove the availability of water to cool reactors for uninterrupted min. 292 days in each year till 2079. Monticello Reservoir cannot help to fulfill BLRA definition's requirement.
- Such water was even not available in the first decade of XXI Century. Now, there are no arguments to defend this claim. ORS/PSC failed to request such necessary documents and execute full professional verification of BLRA legal ground. Order 2009-104(A) was wrong from the beginning.
- PSC Orders opened way to collect enormous sums from the SC electric energy users and USA industry in unlawful way.
- Wojcicki many times questioned water problem. He even tried to suggest much better/superior solution with seawater to help the nuclear renaissance idea.
- Wojcicki interventions were blocked by NRC and PSC in next years. He was disabled from cross-examinations and motions. E.g. PSC Order #2013-481 denied his petition to intervene using BLRA (sic!) "procedure".
- Enclosed Exhibits and analysis done above give more than 100% proof of False Claim from the undisputed hydrological records. None of additional studies are needed after reviewing Exhibits W-01 and W-03.
- This non-applicable BLRA claim was used to harm Government (including taxes), investors with SEC / NYSE violations, sabotaging Bush-Obama's Stimulus and more.
- Extended and sometime redundant explanations written on previous pages do eliminate any, even twisted "defenses". In serious / logical review no line of BLRA application defense exists – neither first nor last.
- Each jury at the trial will certainly find this False Claim in the SCANA/SCE&G Application.
- SCANA/SCE&G still have another source of financing to accomplish their nuclear plant even it won't be a baseload. Even Federal Reserve still has stimulus funds. Bank of America is the largest SCANA shareholder.
- Simple justice in the False Claims Acts action requires returning of overpaid customers / electricity users' bills. Any following, extended legal analysis could increase the total sum.
- Criminal aspects (as in Enron case) are not in the scope of this Analysis. SC Code Section 16-13-260 defines false pretense to "other people's money" as a felony.

- *Tempus fugit* – time is running with more harm to SC and USA economy by increasing cost of electricity. It is economical as well as political matter.
- I am ready to any additional explanations and cooperate / assist to fulfill our obligations to Government and The People.

I declare under the penalties of perjury that I have examined this analysis with supporting documentation and aver that to the best of my/our knowledge and belief, the above findings / works are true, correct, and complete. Without Prejudice under U.C.C. 1-308

Joseph Edward Wojcicki

*Enclosed VII. THE LIST OF SUPPORTING MATERIALS AND SOURCES.*

*VIII. EXHIBITS: W-01 to W-14*

## VII. THE LIST OF SUPPORTING MATERIALS AND SOURCES.

[ 1] **Base Load Review Act**, S.C. Code Ann. §§ 58-33-210 et seq (**BLRA**) without Governor's signature.

[ 2] **South Carolina False Claims Act** SC Code - Titles 15 and 16. The 1976 Code is amended by adding Chapter 85 - : Section 15-85-10. et seq., also 16-3-1280 False claim

[ 3] The **False Claims Act** (31 U.S.C. §§ 3729–3733) ("FCA"). *Inter alia*- general Info:  
[http://en.wikipedia.org/wiki/False\\_Claims\\_Act](http://en.wikipedia.org/wiki/False_Claims_Act).

[ 4] **South Carolina Supreme Court limits nuclear cost recovery for SCE&G** \_ Submitted by NUCBIZ on August 10, 2010 - 01:04 <http://www.nucpros.com/content/south-carolina-supreme-court-limits-nuclear-cost-recovery-sceg> From the Court Opinion No. 26856; Heard April 6, 2010 - Filed August 9, 2010

"In addition to Energy Users, the Commission also received timely petitions to intervene from CMC Steel South Carolina, Pamela Greenlaw, Friends of the Earth, Mildred A. McKinley, Lawrence P. Newton, Ruth Thomas, Maxine Warshauer, Samuel Baker, and **Joseph Wojcicki**. None of the above listed intervenors are a party to this action."

[ 5] **South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act**, S.C. Code Ann. Section 49-4-10 et seq.

[ 6] 1-1-2009 \_ Minimum Flow Rules for South Carolina Rivers

William L. Graf *University of South Carolina - Columbia*, [grafw@mailbox.sc.edu](mailto:grafw@mailbox.sc.edu)

[ 7] **Parr Hydroelectric Project. PARR HYDRO DEVELOPMENT & FAIRFIELD PUMPED STORAGE FACILITY DEVELOPMENT FERC PROJECT No. 1894 –SC.** The Presentation dated January 2013.  
<http://parrfairfieldrelicense.com/documents/quarterlypublicmeeting/Projectpresentation1-13.pdf>

[ 8] **Public Service Commission of South Carolina ("PSC") dockets from 2008-196-E to 2014-187-E ~~2013-150-E~~.** "Our Mission: A Fair, Open, and Efficient Regulatory Process That Promotes Cost-Effective and Reliable Utility Services". All SCANA/SCE&G requests were reviewed under the BLRA.

[ 9] **Wojcicki's Motion to Change the Location of the Two New Reactors Planned by Applicant. PSC docket 2008-196-E doc # 195978 filled 11/10/2008**

[10] **Wojcicki's Rebuttal to South Carolina Electric & Gas Company's Testimonies**

**PSC docket 2008-196-E doc # 196235 filled 11/26/2008**

[11] **Wojcicki's Memorandum dated 2009-02-03 in PSC docket 2008-196-E on ORS**

**[12] Wojcicki's Motion-Consequences and Errata. Dated 2009-03-22 and 24 in PSC docket 2008-196-E**  
... More about lack of cooling water numerical analysis.

[13] Wojcicki's Presentation: Rate hike =9.5% - is it reasonable? ,

PSC docket 2009-489-E

[14]Wojcicki's Petitions and Testimonies. PSC dockets 2012-90-E, 2012-186-E, 2012-203-E,...2014-187-E

[15] Wojcicki's Testimony. PSC docket 2012-225-E

[16] SC DHEC \_SCE&G \_VC Summer Nuclear Facility \_Application for NPDES permit \_ The BYPAS INTERNATIONAL letters dated 2012-04-2 and 2012-6-21.

[17] Wojcicki's Proposed Amendment to DHEC Permit No. SC 0049131 presented and submitted at public hearing on 2012-6-19 in Jenkinsville.

[18] Wojcicki's letter to PSC (dockets 2008-447 and 2009-226-E) dated 2009-11-17 doc #220511

[19] DHEC\_ Draft Permit for Duke Energy Carolinas (Lee station in Cherokee County) \_ BYPAS INTERNATIONAL letter Requesting Additional Information sent 2013-04-04

[20] DHEC Hearing 2013-04-04 in Gaffney, Presentation – video:  
<http://www.youtube.com/watch?v=VOv38SHQo&feature=youtu.be>

[21] PSC Order 2009-104(A) <http://dms.psc.sc.gov/pdf/matters/D627F35F-155D-141F-1DE228CDE5756E98.pdf>

[22] PSC Order 2013- 481 (docket No. 2013-150-E)

[23] SCANA Corporation\_ Shareholders' Meeting on 2013 April 25\_ BYPAS INTERNATIONAL letter Delivered in person at Annual Meeting of Shareholders which was answered by Mr. Marsh-CEO.

[24] SC DNR Climate Change Impacts to Natural Resources in SC  
<http://www.dnr.sc.gov/lwc/climatereport.html>

[25] NRC NUREG -1939 Final Environmental Impact Statement (FEIS) in April 2011.

[26] SCANA Nuclear Development Questions and Answers: <http://www.scana.com/en/investor-relations/nuclear-development/questions/>

[27] SC Code Sec 16-13-260 Obtaining property [money] under false tokens or letters.

[28] Declaration to Protest– doc # 251866 in PSC docket # 2014-187-E dated 8/11/2014

## **VIII. EXHIBITS**

**Exhibit W-01** Statistical review for Alston USGS gage station.

**Exhibit W-02** Letter from SC DNR to US NRC

**Exhibit W-03** Flow charts from USGS stations.

**Exhibit W-04** SCE&G Expenditures through 2012 August 31

**Exhibit W-05** Supporting Water Withdrawal Permitting S 452

**Exhibit W-06** SC Attorney General fights for water.

**Exhibit W-07** PSC Order No. 2013-481.

**Exhibit W-08** SC maps of Loads in the future.

**Exhibit W-09** NRC letter to Wojcicki dated 2012-4-3.

**Exhibit W-10** Wojcicki's letter to SCANA dated 2013-04-25

**Exhibit W-11** How Much is for This Water?

**Exhibit W-12** Have designers known Minimum Flow Problems before their Application was submitted to SC PSC and US NRC?

**Exhibit W-13** Proofs of potential lack of cooling water for Jenkinsville / VC Summer Nuclear Plant from recorded flows in summer 2008.

**Exhibit W-14** The South Carolina Estimated Budget Increase and U.S. Government's losses.

**Exhibit W-15** The copy of letter from South Carolina Attorney General Office.

## Exhibit W-01

Statistical review for Alston USGS gage station –A letter from USGS to  
SC DHEC dated 2012-07-24

Pages 3

Graph from USGS Alston station for a climatic year

Page 5/5



United States Department of the Interior  
U.S. GEOLOGICAL SURVEY  
SOUTH CAROLINA WATER SCIENCE CENTER  
CLEMSON FIELD OFFICE  
405 College Ave., Suite 200  
Clemson, South Carolina 29631

July 24, 2012

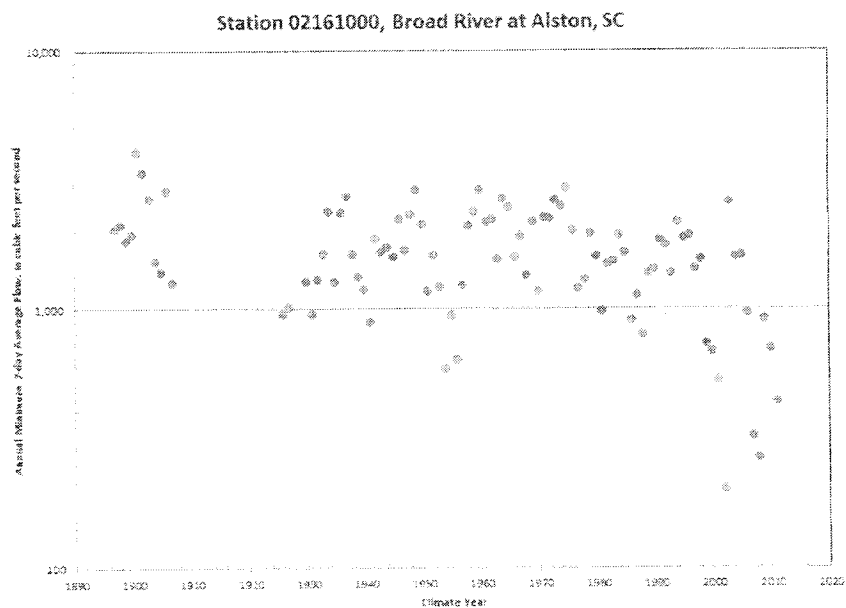
Mr. Larry E. Turner  
Water Quality Modeling Section  
South Carolina Department of Health and Environmental Control  
2600 Bull Street  
Columbia, SC 29201-1708

Dear Mr. Turner:

At your request, the U.S. Geological Survey (USGS) computed the 7-day, 10-year recurrence-interval flow ( $7Q_{10}$ ) for Station 02161000, Broad River at Alston, SC, using the most recent approved flow data, which goes through climatic year 2011. A climatic year begins on April 1 and ends on March 31 and is designated by the calendar year in which it begins. Consequently, climatic year 2011 began on April 1, 2011, and ended on March 31, 2012. It should be noted that Station 02161000 is influenced to an unknown degree by regulation at low to medium flows and also that no adjustments were made for flow diversions. Low-flow characteristics for regulated sites can be considered valid as long as the observed patterns of regulation and (or) diversions continue to be relatively consistent.

The period of record for daily mean flow (DV) at station 02161000, Broad River at Alston, SC, is from October 1896 to December 1907 and October 1980 to present. In addition, DV data were collected at station 02161500, Broad River at Richtex, SC, from October 1925 through July 1928 and October 1929 through September 1983. Thus, the period from October 1, 1980 through September 30, 1983, is concurrent for the two stations. The drainage area at station 02161000 is 4,790 square miles ( $\text{mi}^2$ ) and the drainage area at station 02161500 is 4,850  $\text{mi}^2$ , a difference of about 1.3 percent. Comparisons of the data for the concurrent period were made and it was concluded that combining the DV data for the purposes of this low-flow analysis was reasonable. Doing so provides a much longer period of record that includes a broad range of hydrologic conditions that might be expected to occur at this site. In addition, provisional assessments indicated that adjusting the daily mean flow data at 02161500 by the drainage-area ratio method to account for the differences in flow that might result from the increase in drainage area between stations 02161000 and 02161500 was reasonable and thus was done for this analysis.

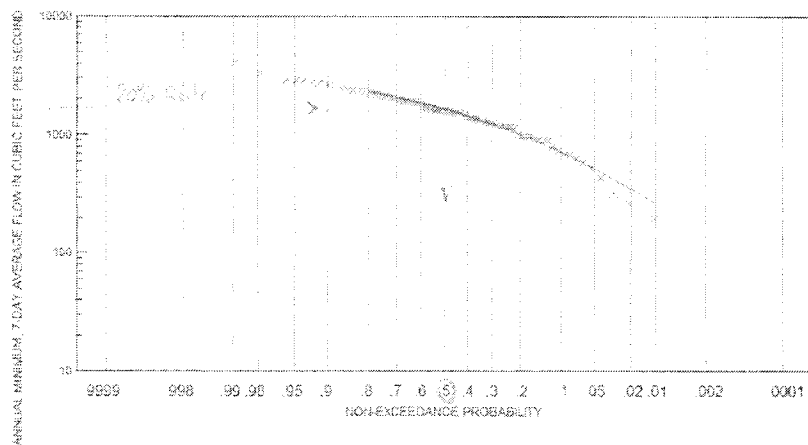
Statistical software was utilized to review the data and do the analyses. The combined daily mean flows from stations 02161000 and 02161500 were used to compute running 7-day average flows. The Kendall Tau statistic and plots of the data by climatic year were used to test for trends in the annual minimum 7-day average flows. The Kendall Tau statistic did indicate a trend in the annual minimum 7-day average flows (fig. 1). The trend is likely due to the historic dry conditions that have occurred over the last decade and not due to changes in the basin. Consequently, the complete period of record was used in the low-flow analysis.



**Figure 1.** Annual minimum 7-day average flow at station 02161000, Broad River at Alston, SC

Single-mass curves of the 50-percentile 7-day average flows along with the ratio of the 10-percentile to the 50-percentile 7-day average flows also were generated and inspected for long-term changes in flow patterns at the station. The slopes of the single-mass curves were reasonably consistent except for the last decade, which showed a decrease in the slope as would be expected given the low-flow conditions as noted in figure 1. Otherwise, the curves were reasonably consistent for the period of record.

The  $7Q_{10}$  estimate was generated by fitting the logarithms of the annual minimum 7-day average flows to a Pearson Type III distribution. As shown on figure 2, the distribution fits the data well throughout most of the range of the data (fig. 2). It can be seen that the lowest 4 data points plot below the curve; however, the curve fit the data well for the 0.1 non-exceedance probability ( $7Q_{10}$ ). The  $7Q_{10}$  estimate from this analysis is 720 cubic feet per second.



**Figure 2.** Low-flow frequency curve for the annual minimum 7-day average flows at station 02161000, Broad River at Alston, SC.

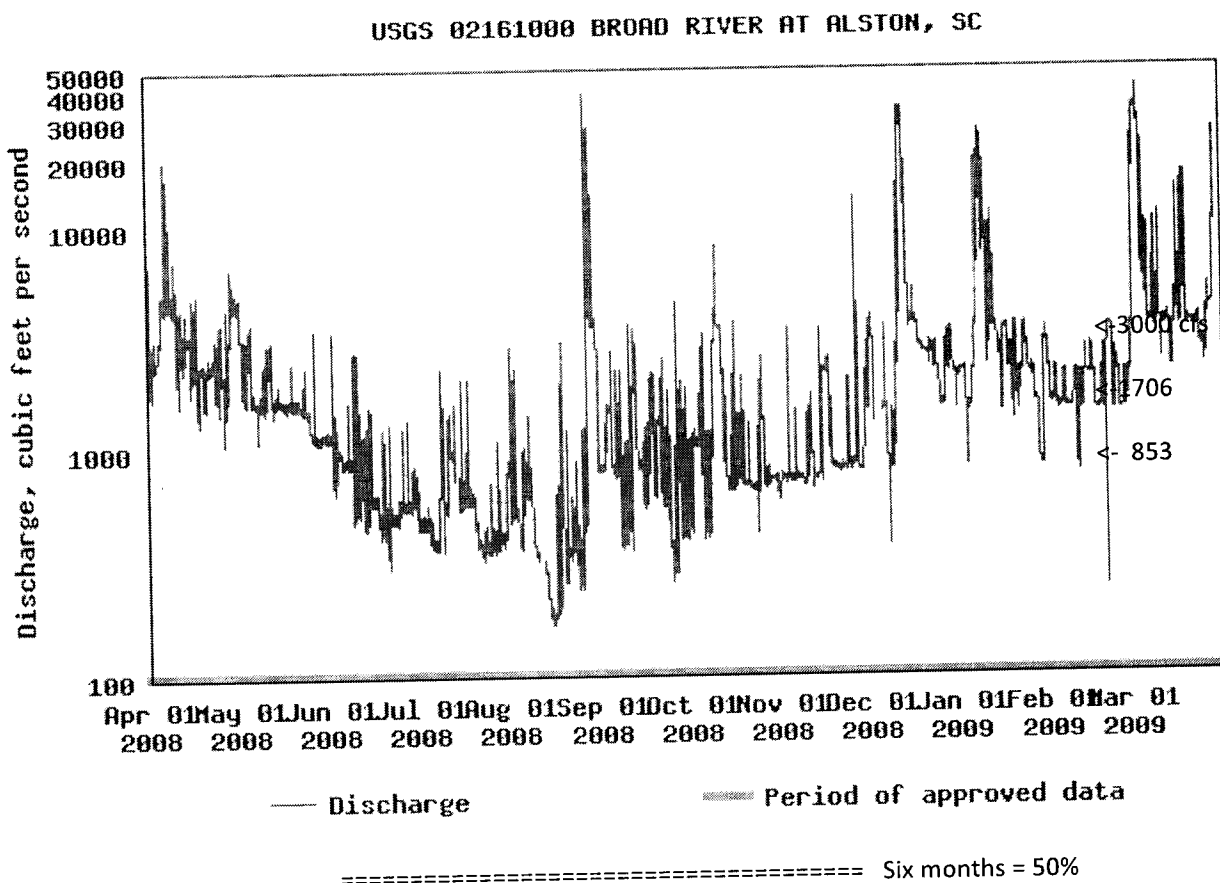
If you have any questions concerning this matter, please call me at (864) 656-6747 or Noel Hurley, Jr. at (803) 750-6126.

Sincerely,

Toby D. Feaster  
Hydrologist

This graph from USGS is showing cooling water availability in Climatic Year 2008 April 1 to 2009 March 31.

Minimum Flow Criteria: NRC = 1706 cfs and SCE&G 853 cfs show only six months availability i.e. 50 % which is even less than 70% required by Base Load Review Act which adapted to Jenkinsville location shall be minimum 80%



## Exhibit W-02

A letter from SC DNR to US NRC dated 2009-03-06

Pages 6

Note: There are underlined statements that have very significant proof of a negligence of water problems in the licensing processes.

# South Carolina Department of Natural Resources



Vivianne Vejdani  
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Wildlife & Freshwater Fisheries Division  
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John E. Frampton  
Director  
Robert D. Perry  
Director, Office of  
Environmental Programs

March 6, 2009

Chief, Rules and Directives Branch  
Division of Administrative Services  
Office of Administration  
Mail Stop TWB-05-B01M  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

REFERENCE: REQUEST FOR PARTICIPATION IN THE SCOPING PROCESS AND  
LIST OF STATE LISTED PROTECTED SPECIES FOR THE  
ENVIRONMENTAL REVIEW FOR THE VIRGIL C. SUMMER  
NUCLEAR STATION, UNITS 2 AND 3, COMBINED LICENSE  
APPLICATION

Dear Chief, Rules and Directives Branch:

Reference is made to the Combined License Application (COL) submitted by South Carolina Electric and Gas Company (SCE&G) and South Carolina Public Service Company (Santee Cooper) in support of application for a combined license for construction and operation of two nuclear power plants at its Virgil C. Summer Nuclear Station (VCSNS) site. South Carolina Department of Natural Resources (DNR) staff reviewed the extensive COL. This correspondence includes comments on the COL, respectfully submitted.

The VCSNS site is co-owned by SCE&G and Santee Cooper and is located in Fairfield County, South Carolina on the Broad River. The VCSNS site currently has one operating pressurized light water reactor with the capacity to generate 966 megawatts of electricity. SCE&G proposes to construct two new nuclear units adjacent to the existing site. SCE&G has also identified the need for transmission line corridor expansion. The siting area for proposed transmission lines would include Calhoun, Chester, Colleton, Dorchester, Hampton, Lancaster, Lexington, Orangeburg, and Richland counties, in addition to Fairfield County.

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Virgil C. Summer Nuclear Station  
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The Broad River is an outstanding resource of state and regional significance and is important habitat for the priority conservation species robust redhorse (*Moxostoma robustum*) and American shad (*Alosa sapidissima*), a wide diversity of freshwater fish and mussel species, and economically important recreational fisheries. The river also supports numerous populations of the rare and sensitive plant species rocky shoals spider lily (*Hymenocallis coronaria*). High quality natural areas and hardwood forests occur along the river corridor and are home to a diversity of game and non-game wildlife species. Many nesting populations of bald eagle (*Haliaeetus leucocephalus*) inhabit its floodplain and depend on the Broad as a source of food. The river is also an important water supply resource for municipalities, hydropower and various industries.

Overall the COL is thorough and the information is well organized, concise and clearly written. DNR recognizes and appreciates efforts by the licensee to avoid and minimize impacts to natural resources. However, our agency has identified a number of concerns regarding potential impacts of the planned facility, particularly those affecting water supply and aquatic habitat of the Broad River and associated water bodies. These concerns are described as follows, and reference the section of the COL to which they correspond:

## CHAPTER 2 ENVIRONMENTAL DESCRIPTION

### Sec. 2.2.2 Transmission Corridors and Off-Site Areas

The COL provides a broad overview of existing and proposed transmission line corridors. Final routes will be identified in the upcoming Phase 3 transmission line study. DNR requests consultation throughout Phase 3 and the final route selection process.

#### Sec. 2.3.1.1.1 Rivers and Streams

The COL refers to the calculation of mean daily and mean monthly flow in the Broad River using the Richtex, Alston and Carlisle USGS stream gauges. However, it is unclear what methods or additional data were used to estimate inflow into the Parr Reservoir. Were flows estimated using a combination of USGS gauge flow data, scaled down to the drainage area of the reservoir, or were they estimated with a water balance equation? A complete description of methodology is needed to evaluate flow estimates provided in the COL.

#### Sec. 2.3.1.1.3 Low Flows

The COL describes a seven-day average low flow of 156 cfs calculated from 2002 flow data from the Alston gauge, located approximately 1.2 miles downstream of Parr Shoals Dam. A 100-year daily mean flow of 125 cfs, and a 100-year seven-day average low flow of 430 cfs, were also calculated for the Alston gauge. The seven-day average low flow at the Parr dam was estimated to be 190 cfs, also in 2002. A 7Q10 flow equaling 853 cfs was estimated from data from the Richtex and Alston gauges. There is no information on historical or estimated low

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inflow to the Parr Reservoir other than that provided from the Carlisle gauge, 21 miles upstream of the project site. According to the COL, historical daily mean flows in the Broad River at the

Alston gauge have been as low as 48 cfs (2002). The COL adds that this flow was *not considered representative of natural river flows because it was influenced by the upstream flow diversion from the Parr Reservoir to Fairfield Pumped Storage Facility*. This statement seems to suggest that downstream flows are run-of-river and not regulated by the operation of the Parr project and Fairfield Pumped Storage Facility (FPSF).

The COL states that *the state of South Carolina uses the 7Q10 flow to determine potential impacts*. This statement is misleading. The South Carolina Department of Health and Environmental Control uses the 7Q10 of a water body to determine the assimilative capacity of that water body when setting limits to effluents in National Pollutant Discharge Elimination System permits. DNR follows the guidelines of the South Carolina Water Plan (second edition, 2004) when evaluating potential impacts to state water resources. (South Carolina Department of Health and Environmental Control, 2004).

#### Sec. 2.3.1.1.4 Dams and Reservoirs

The COL states that the pan evaporation loss rate from the Parr Reservoir was estimated from data obtained from DNR, but the exact source of this data is not identified. In addition, there is no information provided on how evaporative loss was estimated for the Monticello Reservoir. Complete information is needed on the data and methods used to estimate pan evaporation loss rates for Parr and Monticello reservoirs.

This section provides a very general overview of the operation of the reservoirs and FPSF, stating that *pumping is normally done at maximum capacity*. There is no information on whether operation is modified during times of low flow. Is pumping curtailed during times of extreme low flows? Is operation of the Parr hydro facility modified during low flows? Information on how water is apportioned between reservoirs, the FPSF and the Broad river, particularly during low flow periods, is needed. If no provisions exist, then a drought response plan will need to be developed in consultation with regulatory and resource agencies.

DNR manages the Parr Reservoir and Monticello Reservoir Waterfowl Management Areas, and the Monticello Sub-Impoundment supports a recreational fishery. Water level fluctuations within the reservoirs and their potential impact on waterfowl habitat and fisheries are of concern. Increased temperatures during low flows have caused fish kills in the Monticello Reservoir. In the early to mid-1990s the licensee employed several mitigation measures, including dredging the discharge canal in 1993, to increase water circulation and cool water temperatures during low flow periods. No fish kills have been reported since that time. It is not known what, if any, impacts may accrue from increased reservoir fluctuations attributable to the addition of Units 2 and 3. Additional consultation throughout licensing is requested to address these concerns.

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#### Sec. 2.3.2.2 Local Surface Water Use

On page 2.3-21 the COL indicates that the licensee intends to request a license amendment of the Parr hydro project for increased water withdrawals for the operation of Units 2 and 3. Licensed flows for the Parr Hydro project are 1,000 cfs or average daily natural inflow (less evaporation)

during the striped bass spawning season of March, April and May, and 800 cfs (less evaporation) for the remainder of the year, with a minimum instantaneous flow release of 150 cfs. Estimated evaporative loss from Unit 1 alone is estimated at between 8.7% to 15% of the licensed minimum instantaneous flow of 150 cfs. Increased evaporative loss from the addition of Units 2 and 3 could have significant impacts on downstream flows, particularly during times of low flow. The state of South Carolina continues to experience drought conditions of unprecedented severity and duration. As of this writing, the entire state is in drought status ranging from "incipient" to "extreme". This fact underscores the supreme importance of carefully and thoroughly evaluating the hydrological impact of the proposed expansion.

#### Sec. 2.4.3.1 Rare/Sensitive Species

As noted in the COL, DNR stocks robust redhorse and smallmouth bass in the Broad River. Smallmouth bass have developed into a spawning population and fishery of increasing local and regional significance. Robust redhorse will continue to be stocked by DNR with the goal of creating a self-sustaining population. Both species were collected in the Monticello Reservoir in 2008. It is not known whether the intake area of the Parr Reservoir and FPSF is attracting these species, and there is a concern that increased pump-back operations may have an adverse impact on smallmouth bass and robust redhorse populations.

### CHAPTER 4 IMPACTS OF CONSTRUCTION

#### General Comments

We recommend the licensee incorporate low impact procedures such as constructed wetlands, rain gardens, and double silt fencing throughout construction. Storm water detention facilities should be built well above floodplains and wetlands, and should not impound any streams. Detention facilities should discharge to constructed wetlands for further treatment of stormwater runoff. In shoreline areas, the applicant should use bioengineering techniques to the greatest extent possible. Maximum width buffers should be maintained between any construction site and any aquatic site. These buffers should be non-disturbance areas that are maintained in natural vegetation.

#### Sec. 4.3.1.1 The Site and Vicinity

The COL states that *a small portion of a small intermittent stream and its associated wetland extend slightly into the area in which the cooling towers would be located; a portion of this wetland would be impacted by construction activities.* During an interagency meeting with the

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licensee on February 5, 2009, anticipated impacts to intermittent stream and wetland were described as totaling approximately 600-700 linear feet and approximately 0.30 acre of wetland. We recommend avoiding all impacts to onsite streams and wetlands to the greatest practicable extent. An appropriate mitigation plan for unavoidable impacts to waters of the United States should be reviewed and approved by resource agencies and provided consistent with the Federal Mitigation Rule.

#### Sec. 4.3.2.1.1 Construction of Intake Structure and Blowdown Line

Two water intakes and one discharge are included as lake impacts. A raw water intake and a water treatment plant intake will be constructed in the Monticello Reservoir. Construction of the raw water intake will be accomplished in the dry with the assistance of a sheet pile coffer dam surrounded by silt curtains. The applicant has proposed to pump silt-laden water from behind the coffer dam into the space between the coffer dam and the silt curtain. Rather than pumping silt-laden water directly into Monticello, water should be filtered to remove silt and sediment before it is returned to the reservoir.

### CHAPTER 5 IMPACTS OF STATION OPERATION

#### Sec. 5.1.2 Transmission Corridors and Off-Site Areas

See comment above, Sec. 2.2.2.

#### Sec. 5.3.2.1.2 Modeling of Blowdown Temperatures

The CORMIX model was used to model the extent of the thermal plume that would exceed applicable SCDHEC water quality standards of  $T > 90^{\circ}\text{F}$  or  $\Delta T$  of  $5^{\circ}\text{F}$  above ambient river temperatures. A variety of scenarios were modeled using input flows synthesized from Carlisle and Alston gauge flows. The "worst case scenario" was identified as follows: 2 cycles of concentration through cooling towers, 7Q10 flows, no operation of the FPSF, and max- $\Delta T$ (winter). The extent of the plume resulting from these conditions was modeled to be ~ 0.30 to 0.40 acre and would extend ~ 25% of the reservoir's width. Inflow to the Parr reservoir has been considerably lower than the modeled 7Q10 flow. Adverse impacts to aquatic resources can be significant if organisms are not able to avoid or find refugia from the thermal plume. More information is needed on the extent of the plume under very low flow conditions (e.g., flows less than the 7Q10 of 853 cfs). DNR requests additional consultation on the analysis of thermal impacts for low-flow conditions.

### CHAPTER 10 PROPOSED ACTION CONSEQUENCES

#### Sec. 10.5.2 Cumulative Impacts of Operations

The COL indicates that during low flow periods the additional consumptive water loss associated with Units 2 and 3 would be mitigated by removing water from the reservoirs rather than *directly removing water from the Broad*. The COL also identifies the Lee Nuclear plant as a future

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upstream water user, adding that cumulative impacts of VC Summer and Lee nuclear plants will be *small* with the addition of any *water supply features and mitigation measures*. However, the COL does not indicate how water is to be allocated between the reservoirs and river, or how operation of the Parr project and FPSF will be modified, to mitigate low flows. The COL indicates a minimum reservoir elevation of 418 ft. What are the operational or physical constraints on minimum reservoir elevation? As stated above, it is of extreme importance that issues of water supply during low flows are thoroughly addressed and appropriate mitigation measures are clearly identified, in consultation with regulatory and resource agencies, during the licensing process.

In conclusion, because of nuclear energy's relatively non-existent green-house gas emissions DNR supports opportunities to consult, review and participate in discussions involving additional reliance on nuclear power for generation of electricity. In view of the magnitude of the above-listed potential impacts, DNR urges diligence and additional documentation/consultation with respect to potential project impacts. We appreciate the opportunity to participate in the scoping process.

Please contact me at 803-734-4199 if you have any questions regarding this matter or if we can be of further assistance.

Sincerely,  
Vivianne Vejdani  
Vivianne Vejdani,  
Environmental Coordinator,  
Wildlife and Freshwater Fisheries Division

c: Don Winslow  
Bob Perry  
Steve DeKozlowski  
Bud Badr  
Breck Carmichael  
Hal Beard

# Exhibit W-03-01

## 1. The List of the river flow graphs from US Geological Survey:

Exhibit W-03-02 Alston\_ From 2007-10-01 to 2008-09-30

Exhibit W-03-03 Alston\_ From 2007-12-23 to 2007-12-26 a time window for threshold= UP

Exhibit W-03-04 Alston\_ From 2008-06-01 to 2008-06-23 time window for threshold= DOWN

Exhibit W-03-05 Alston\_ From 2008-06-08 to 2008-06-12 fluctuation with hydropower generation.

Exhibit W-03-06 Carlisle\_ From 2007-10-01 to 2008-09-30

Exhibit W-03-07 Carlisle\_ From 2008-06-08 to 2008-06-12 water flow and temperature.

Exhibit W-03-08 Congaree\_ From 2007-10-01 to 2008-09-30

Exhibit W-03-09 Alston\_ From 2008-01-01 to 2011-12-31 showing climatic years.

## 2. There are marked horizontal lines for minimum flow criteria:

--- Perspective 20% Rule from Congaree River minima: 2000-3000 cfs

--- Recalculated from NRC 20% rule = 1706 cfs

--- SCE&G 7Q10 rule = 853 cfs

--- FERC P-1894 non- amended old license = 1000/800 cfs

## 3 Vertical lines show significant events (crossing limits value).

4. Notes are done to show %% of duration the available water for cooling.

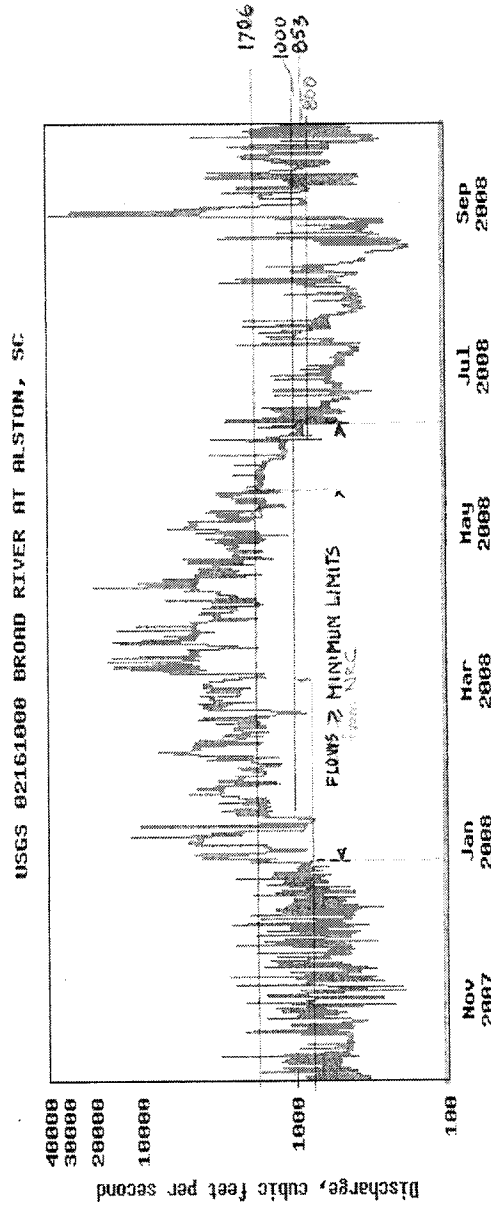
5. Above data was available before PSC Order 2009-104(A) was issued and before NRC licensing in March 2012.

Daily discharge, cubic feet per second -- statistics for Jan 22 based on 32 years of record

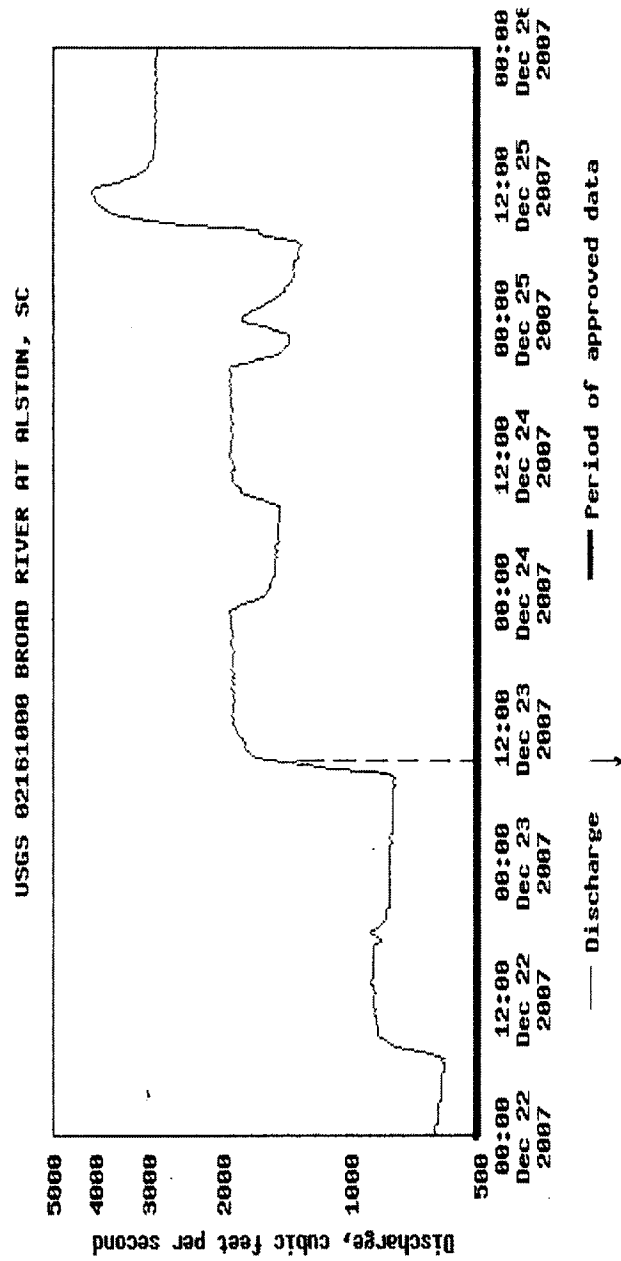
Min (2002)	25th percen- tile	Most Recent Instantaneous Value Jan 22 2013	Median	Mean	75th percen- tile	Max (1993)
48	3260	4080	5750	8280	9390	34500

Rule 20% from NRC = **1706 cfs**  
 Rule 20 % from USGS = **1656 cfs**  
 SCE&G rule 7Q10 = **853 cfs**  
 FERC for Part **1000 / 800 cfs**

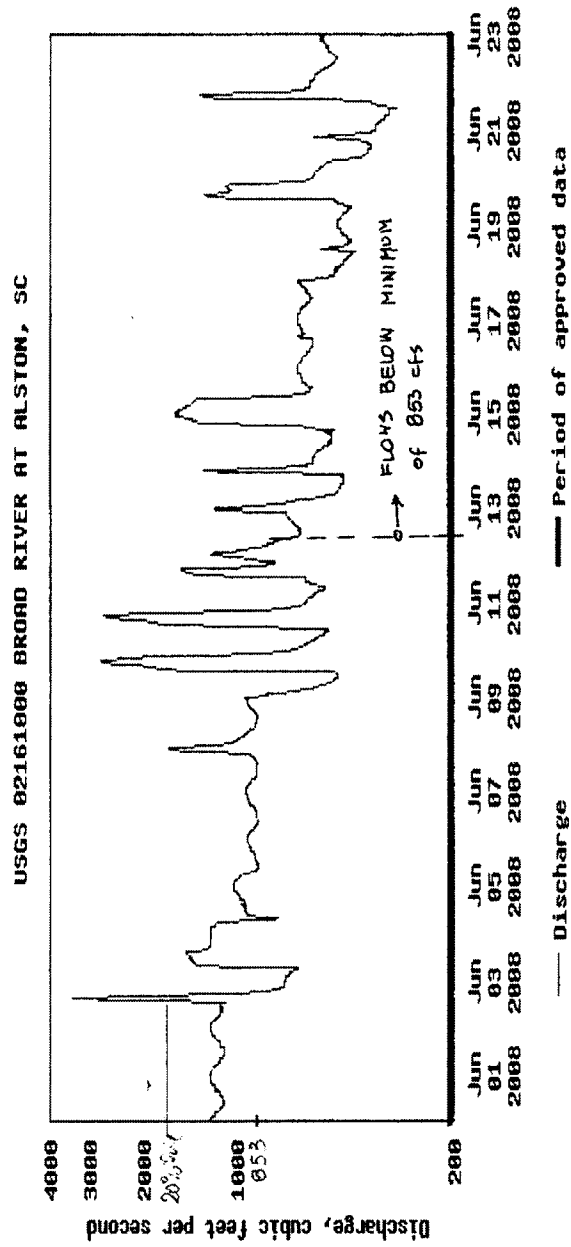
Data from the first available annual record:  
2007-10-01 to 2008-09-30



**Note:** Adequate Flows For Costing are from 2007 Dec 23 to 2008 June 12  
i.e. 172 days or 47% of 12-month period with 365 days  
For NRE 1706 cfs - there is 165 days from Dec 23 to May 27 → 42%



Note the date when the flow rate crossing the minimum threshold value: it is December 23, 2007



USGS 02161000 BROAD RIVER AT ALSTON, SC

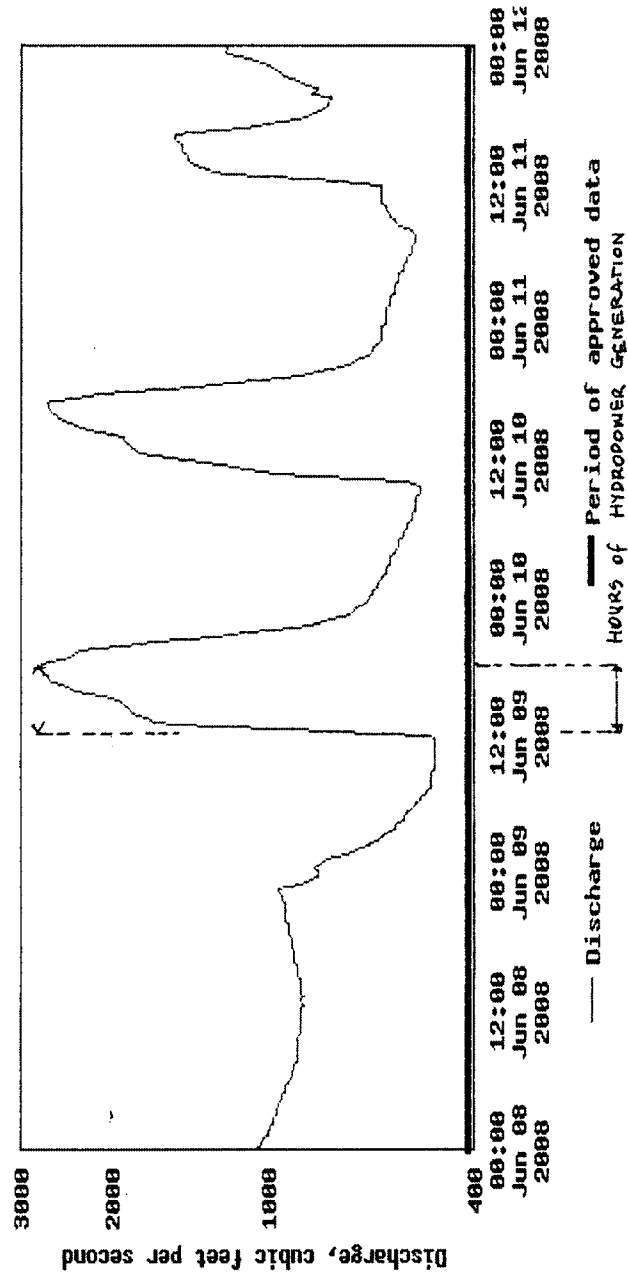
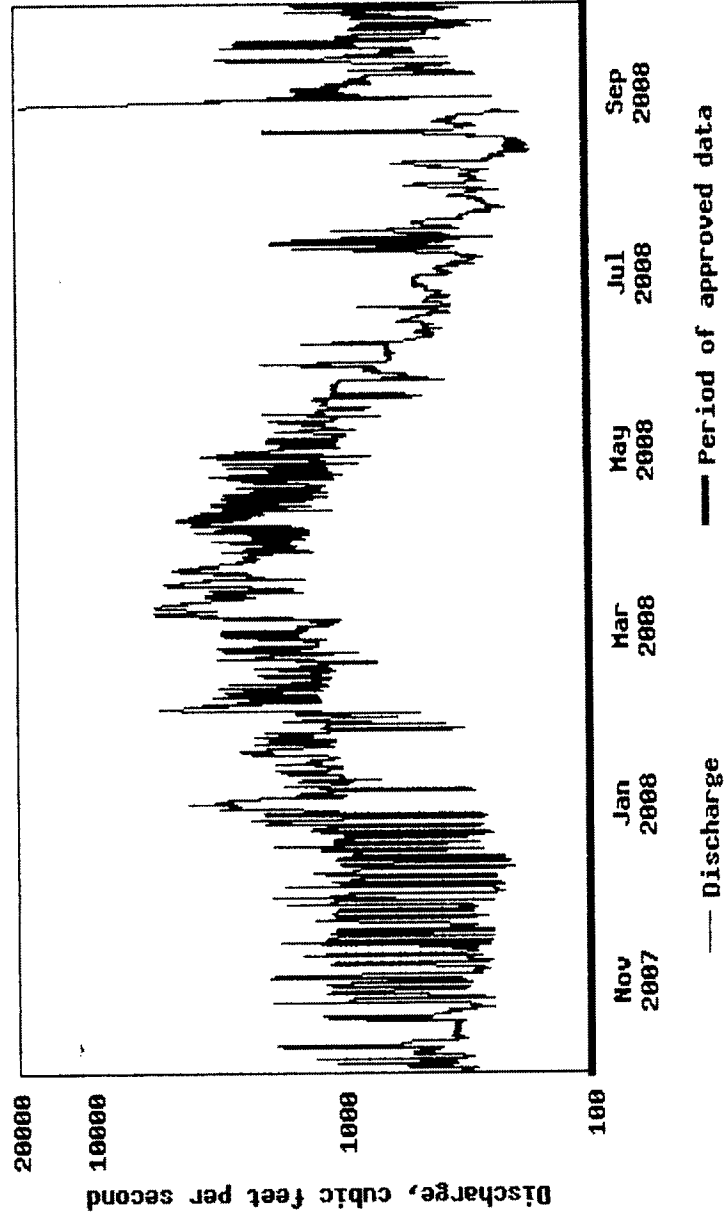


Exhibit W-03-06

Carlisle 2007 Oct1 - 2008 Sep 30

USGS 02156500 BROAD RIVER NEAR CARLISLE, SC



Summer 2008 Water Flow At Carlisle and its Temperature.

Exhibit W-03-07

Note the minimum flow limit of 800 cfs and 7Q10 = 853 cfs

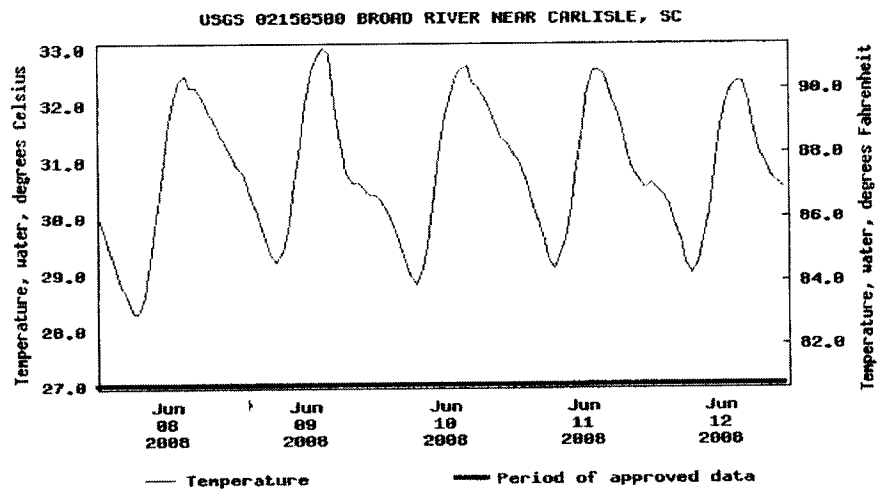
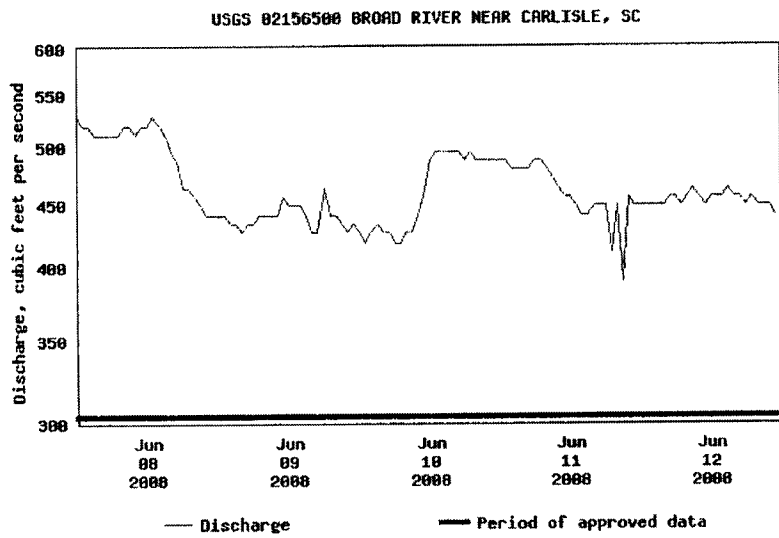
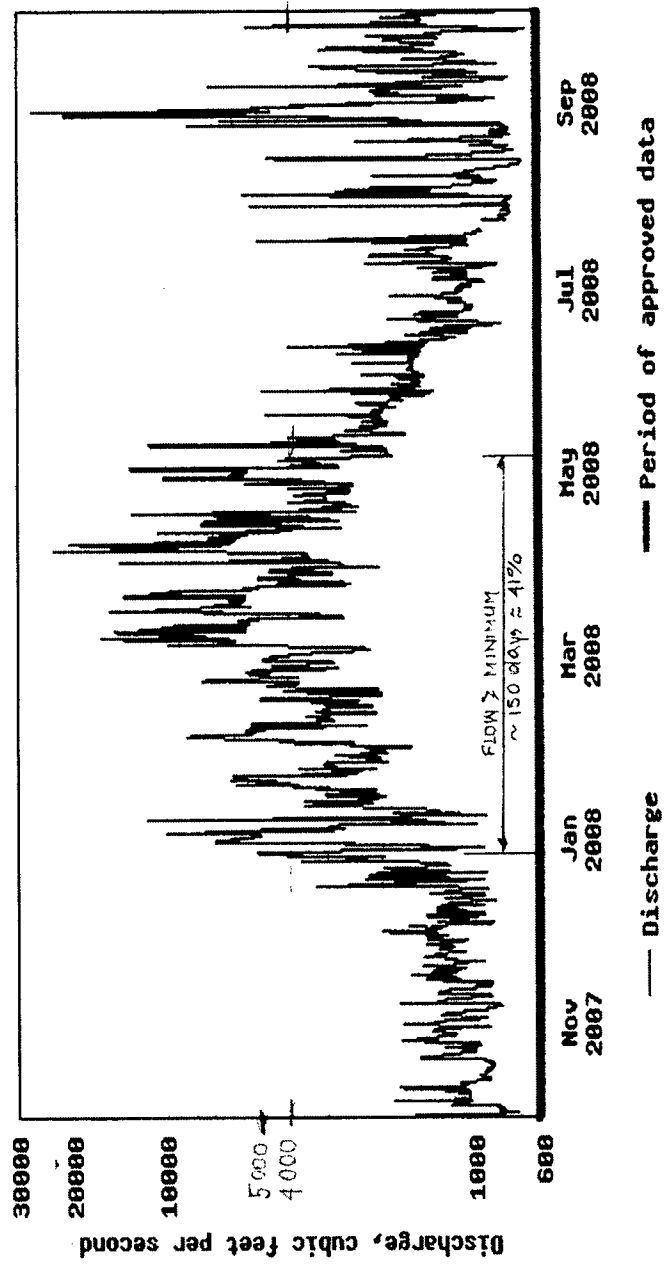


Exhibit W-03-08

[http://nwis.waterdata.usgs.gov/usa/nwis/uv/?cb\\_00060=on&cb\\_00065=on&format=rif\\_default&period=&begin\\_date=2007-10-01&end\\_date=2008-10-01&site\\_no=02169500](http://nwis.waterdata.usgs.gov/usa/nwis/uv/?cb_00060=on&cb_00065=on&format=rif_default&period=&begin_date=2007-10-01&end_date=2008-10-01&site_no=02169500)  
 Minimum = 4000 cfs  
 up to 5000 cfs

USGS 02169500 CONGAREE RIVER AT COLUMBIA, SC



Start date January 1

Exhibit W-03-09

USGS 02161000 BROAD RIVER AT ALSTON, SC

